Template Constrained Macrocyclic Peptides Prepared from Native Unprotected Precursors

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Supporting Information

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General:

Unless stated otherwise, reactions were performed under an argon atmosphere in flame-dried glassware. Tetrahydrofuran (THF) was deoxygenated and dried by passing through an activated alumina solvent drying system. Anhydrous *N*,*N*-dimethylformamide (EMD DriSolv®) was used without further purification.

Purification of acidolysis products employed an Agilent 1100/1200 HPLC system equipped with G1361A preparative pumps, a G1314A autosampler, a G1314A VWD, and a G1364B automated fraction collector. Analytical HPLC was performed using the same system, but with a G1312A binary pump. Mass spectra were recorded using an Agilent 6130 LC/MS system equipped with an ESI source.

NMR methods:

NMR spectra were recorded on BrukerAvance (500 or 600 MHz) spectrometers. Data for ^{1}H NMR spectra are reported as: chemical shift (δ ppm) (multiplicity, coupling constant (Hz), integration), and are referenced to a residual DMSO-*d6* (2.50ppm). ^{13}C resonances are reported in terms of chemical shift (δ ppm) as referenced to DMSO-*d6* (39.52 ppm). For mass-limited samples, solvent magnetic susceptibility matched Shigemi tubes were used with a sample volume of ~300 µL. Optimization of on-axis shims was accomplished using the TopShim automated tool within Bruker Topspin™ 2.1. Optimization of off-axis shims was performed manually,[1] or with TopShim3D in the case of samples containing H_2O. ^{1}H 90º transmitter pulse lengths were calibrated by back calculation from the 360º null.[2] The pulse width or power level for soft pulses and shaped pulses were calculated using the Shape Tool within TopSpin™ 2.1.

COSY spectra were recorded using a phase sensitive, gradient enhanced double-quantum-filtered experiment,[3] or magnitude mode gradient enhanced experiment with presaturation using the States-TPPI method. Data were typically recorded as a matrix of 2048 x 512 complex points and 2 transients per increment. Data were apodized with a π/3-shifted sine-bell in the F1 dimension truncated at 10%, and with an untruncated π/3-shifted sine-bell in the F2dimension. Zero filling was applied in F2 to give a symmetrical matrix of 4K x 4K real points following mirror image linear prediction in F1 (64 coefficients) to 256 points.

TOCSY spectra were recorded using a phase sensitive experiment implementing preservation of equivalent pathways.[4] A 60ms DIPSI-2 or MLEV pulse train was used for homonuclear Hartman-Hahn transfer.[5] Data were typically recorded as a matrix of 2048 x 256 complex points and 2 or 8 transients per increment. Data were apodized with a π/3-shifted squared sine-bell in the F1 dimension truncated at 10%, and with an untruncated π/2-shifted squared sine-bell in the F2dimension. Zero filling was applied in F2 to give a symmetrical matrix of 4K x 4K real points following mirror image linear prediction in F1 (64 coefficients) to 128 points.

NOESY spectra were recorded using a phase sensitive experiment with selection gradients during the mixing time. A 300ms mixing time was used for qualitative structural assignment. Data were typically recorded as a matrix of 4096 x 256 complex points and 8 transients per increment. Data were apodized with a π/3-shifted squared sine-bell in the F1 dimension truncated at 10%, and with an untruncated π/2-shifted squared sine-bell in the F2dimension. Zero filling was applied in F2 to give a symmetrical matrix of 4K x 4K real points following forward linear prediction in F2 (32 coefficients) to 64 points, and mirror image linear prediction in F1 (64 coefficients) to 128 points.

Carbon chemical shifts were measured from 2D plots of either HSQC spectra for protonated carbons or HMBC spectra for non-protonated carbons. ^{1}H-^{13}C HSQC spectra were recorded using a sensitivity improved phase sensitive experiment using an adiabatic shape pulse for ^{13}C inversion, and ^{13}C decoupling during acquisition.[6] Experimental parameters were optimized for $^{1}J_{CH}$ = 145Hz. ^{1}H-

1. Berger S, Braun S (2004) in *200 and More NMR Experiments*, Wiley-VCH, Weinheim, pp 6-11.
2. a) Claridge TDW (1999) in *High-Resolution NMR Techniques in Organic Chemistry*, Pergamon, Oxford, **1999**, 94-97. b) Berger S, Braun S (2004) in *200 and More NMR Experiments*, Wiley-VCH, Weinheim, pp 15-17.
3. a) Hurd R E (1990) Gradient-enhanced spectroscopy. *J Magn Reson 87(2):*422-428. b) Brereton I M, Crozier S, Field J, Doddrell D M (1991) Quadrature detection in F_1 induced by pulsed field gradients. *J Magn Reson 93(1)*:54-62. c) Shaw A A, Salaun C, Dauphin J F, Ancian B (1996) Artifact-Free PFG-Enhanced Double-Quantum-Filtered COSY Experiments. *J Magn Reson Ser A 120(1)*:110-115.
4. Wagner R, Berger S (1996) Gradient-Selected NOESY—A Fourfold Reduction of the Measurement Time for the NOESY Experiment. *J Magn Reson 123(1):*119-121
5. Cavanagh J, Rance M, (1990) Sensitivity improvement in isotropic mixing (TOCSY) experiments. *J Magn Reson 88(1):*72-85
6. a) Palmer A G III Cavanagh J, Wright P E, Rance M (1991) Sensitivity improvement in proton-detected two-dimensional heteronuclear correlation NMR spectroscopy. *J Magn Reson 93(1):*151-170. b) Kay, L.E.; Keifer, P.; Saarinen, T (1992) Pure absorption gradient enhanced heteronuclear single quantum correlation spectroscopy with improved sensitivity. *J Am Chem Soc 114(26):*10663-10665. c) Schleucher J, et al (1994) A general enhancement scheme in heteronuclear multidimensional NMR employing pulsed field gradients. *J Biomol NMR 4*(2):301-306.

^{13}C HMBC spectra were recorded using a gradient selected experiment with a *J*-filter element optimized for $^{1}J_{CH}$ = 125-165Hz. Experimental parameters were optimized for long range $^{n}J_{CH}$ = 8Hz.

Solution conformation of compound 39:

The solution conformation of **39** was determined from NMR spectra acquired in 9:1 DMSO-d_6:H_2O and in 9:1 DMSO-d_6:D_2O. All spectra were recorded on a Bruker AV-600 spectrometer equipped with an inverse triple resonance probe. Except for variable temperature experiments used for the determination of backbone NH temperature coefficients, all spectra were recorded at 283K. Water suppression was achieved with presaturation for COSY experiments, and with excitation sculpting for 1D-^{1}H, TOCSY and NOESY experiments. Sequence specific ^{1}H assignments were determined by standard methods for unlabeled polypeptides employing TOCSY and NOESY data.[7] Temperature dependence of backbone H^N chemical shifts was determined from 1D-^{1}H experiments and confirmed by COSY experiments.

Distance restraints were obtained from a ^{1}H-^{1}H NOESY experiment using a 150ms mixing time and 2s interscan delay. Data were calibrated to the fixed reference distance Trp $H^{\varepsilon 1}$-$H^{\zeta 2}$ (H18-H20, page 4) of 2.82Å.[8] Volume integrals were grouped into bins, and classified as strong (<2.5Å), medium (<3.5 Å) or weak (<4.5 Å), based on the relationship of r^{-6} assuming linear buildup and the isolated spin pair approximation. Backbone phi angle restraints were derived from $^{3}J_{HNHa}$ coupling constants measured from 1D-^{1}H and DQF-COSY experiments conducted in 9:1 DMSO-*d6*:H_2O, and were restrained to ±40º of the predicted angle(s) derived the Karplus equation.[9] Side chain chi-1 torsion restraints were derived from analysis of $^{3}J_{HaHb}$ coupling constants measured from 1D-^{1}H and E.COSY experiments conducted in 9:1 DMSO-d_6:D_2O. Stereospecific assignment of β-methylenes was made by analysis of H^N-H^b NOEs, where possible, and chi-1 angles were restrained to ±60º of the predicted angle(s).

Structure calculations were carried out using Macromodel v9.8 (Schrödinger, Inc., San Diego, CA) using the OPLS-2005 force field with implicit GB/SA aqueous solvation and a constant dielectric (ε = 1.0). Distance and dihedral restraints were introduced as pseudoenergy terms comprising a flat bottomed harmonic potential of 100kJ/Å^2, and 1000kJ/mol, respectively. An initial model was generated by a 10,000 step mixed Monte-Carlo long range, low-mode conformational search. Ambiguous NOEs were manually refined based on this initial model. The final structure calculation was carried out in the same manner. Redundant conformers were filtered within a heavy atom RMSD cutoff of 1.0Å, and the top 10 structures selected for the ensemble.

Tabulated NOEs and coupling constants for macrocycle 39 in DMSO-d_6:H_2O (9:1):

Residue	**^{3}J H^NH^α (Hz)**	**^{3}J $H^\alpha H^{\beta'}$ (Hz)**	**^{3}J $H^\alpha H^\beta$ (Hz)**
Trp[1]	7.5	5.7 (*pro-S*)	8.3 (*pro-R*)
Leu[2]	7.0	nd	nd
Gln[3]	7.3	5.8 (*pro-S*)	8.9 (*pro-R*)
Met[4]	7.9	4.6 (*pro-R*)	7.9 (*pro-S*)
Thr[5]	7.4	3.8	-
Gly[6]	na	-	-
Phe[7]	7.7	4.4 (*pro-R*)	9.5 (*pro-S*)
Tyr[8]	9.1	4.0 (*pro-S*)	9.6 (*pro-R*)

7. Cavanagh J, Fairbrother W J, Palmer A G III, Rance M, Skelton NJ (2007) in *Protein NMR Spectroscopy, 2nd Edition: Principles and Practice*. Elsevier Academic Press: San Diego, Ch. 10.
8. Bye E, Mostad A, Romming C (1973) Crystal Structure of DL-Tryptophan Formate. *Acta Chem Scand 27*:471-484.
9. Wang A C, Bax A (1996) Determination of the Backbone Dihedral Angles ϕ in Human Ubiquitin from Reparametrized Empirical Karplus Equations. *J Am Chem Soc 118*(10):2483–2494.

Tabulated NOEs for macrocycle 39

atom A	atom B	volume integral	bin	calc'd structure
18	20	1.00	Ref (2.82Å)	3.0
13	26	1.43	m	4.0
13	23	0.34	m	3.7
13	9	0.22	w	3.4
13	7	0.09	w	4.6
13	15	1.19	m	2.9
13	15'	2.07	m	3.5
13	11	4.69	s	2.3
13	29	0.25	w	3.9
23	14	0.69	m	4.0
23	15'	0.60	m	3.9
23	15	0.66	m	2.4
17	14	0.63	m	3.6
17	15'	0.70	m	2.6
17	15	0.74	m	3.7
17	26	0.20	w	3.8
23	26	0.20	w	3.3
14	26	3.32	s	2.2
15'	26	0.58	m	3.7
15	26	0.69	m	3.7
26	33	1.21	m	4.0
26	30	0.26	w	4.9
26	31	0.35	w	4.5
27	33	3.58	s	2.1
27	30	0.66	w	4.8
27	31	1.92	m	2.3
28	33	1.64	m	2.5
28	40	0.45	m	3.8
28	55	0.27	w	4.0
31	33	0.33	w	3.8
30	33	0.31	w	4.9
33	35	1.87	m	2.5
33	35'	1.40	m	2.9
33	36	1.18	m	4.4
34	40	3.43	s	2.1
34	36	1.75	m	3.2
35	38	0.23	w	2.0
35'	38	0.21	w	3.5
36	38	1.73	m	3.3
36	71	0.63	m	3.5
42	46	0.69	m	3.9
42'	46	0.78	m	3.5
40	46	0.93	m	3.0
40	43	0.66	m	3.7
40	36	0.50	m	3.9
40	42	2.18	m	2.0
40	42'	1.77	m	3.1
41	46	4.56	s	2.9
41	43	0.63	m	2.5
46	52	1.75	m	2.3
46	50	1.15	m	2.6
46	49	1.43	m	2.7
46	43	0.24	w	4.8
47	49	2.14	m	2.6
49	52	0.66	w	4.4
49	55	0.19	w	4.9
50	52	0.53	m	2.6
50	55	0.23	w	2.5
52	55	0.79	m	1.9
52	48	0.87	m	3.7
53'	55	1.74	m	3.3
55	57'	2.02	m	2.5
55	57	2.68	s	2.4
57'	59	1.13	m	3.0
57	59	1.65	m	3.3
56	59	1.03	m	2.3
63	65'	0.99	m	3.7
63	65	2.22	m	2.5
71	63	0.68	m	2.3
64	71	2.52	s	3.2
64	67	2.55	m	3.1
71	65'	0.59	m	4.0
65'	67	2.80	s	2.4
65	67	2.62	s	2.5
63	55	3.13	s	2.6
3	5	1.37	m	3.2
3	9	2.52	s	3.0
2	5	1.19	m	3.7
2	9	2.47	s	2.9
1	5	0.22	w	5.0
1	9	0.29	w	4.1

Total NOE restraints

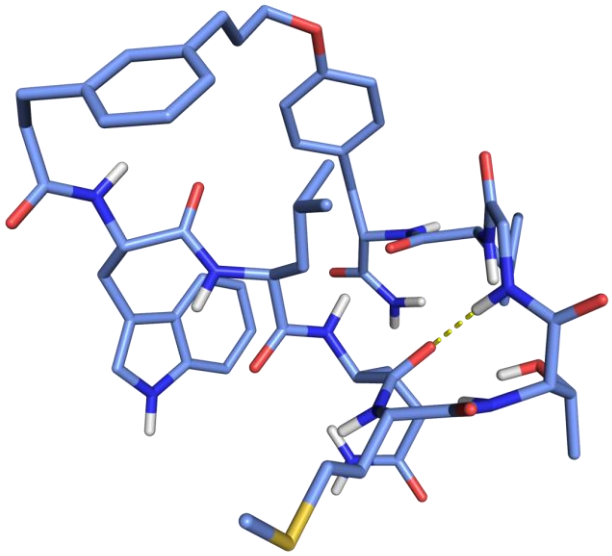
all (80)
intraresidue (42)
sequential (|*i* - *j*| = 1) (31)
non-sequential, long-range (|*i* - *j*| > 1) (7)

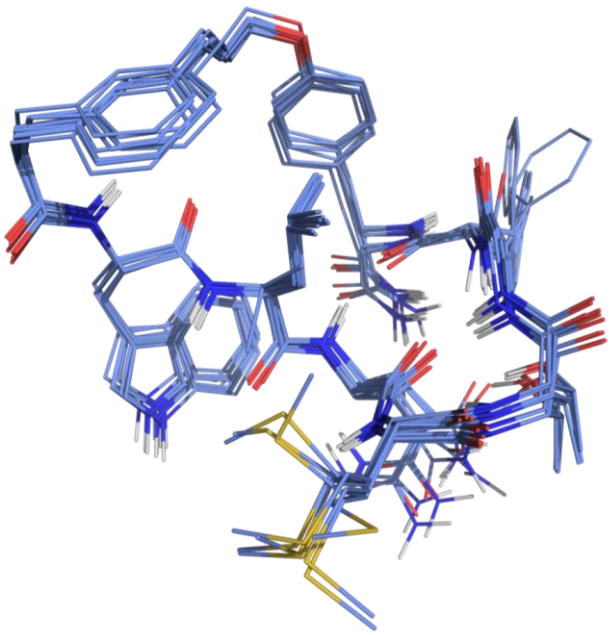
RMSD (Å) pairwise averaged over ensemble

Heavy atoms	0.76
Core macrocycle	0.36
All atoms	0.95

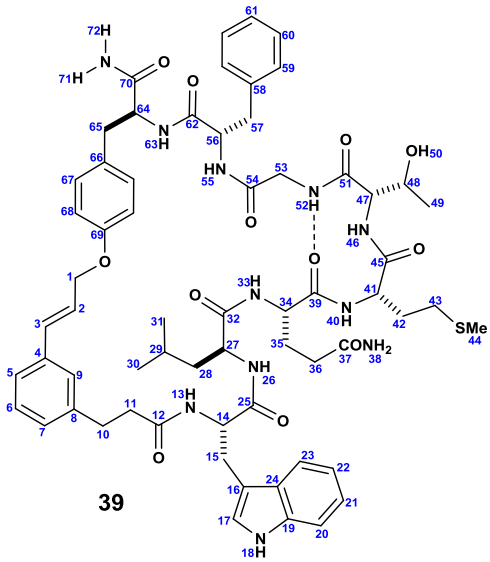
Constraint violations

No. of NOEs. > 0.5Å	4
Sum of violations > 0.5Å (Å)	2.22
Max. NOE violation (Å)	0.66





Resonance assignment for WLQMTGFY

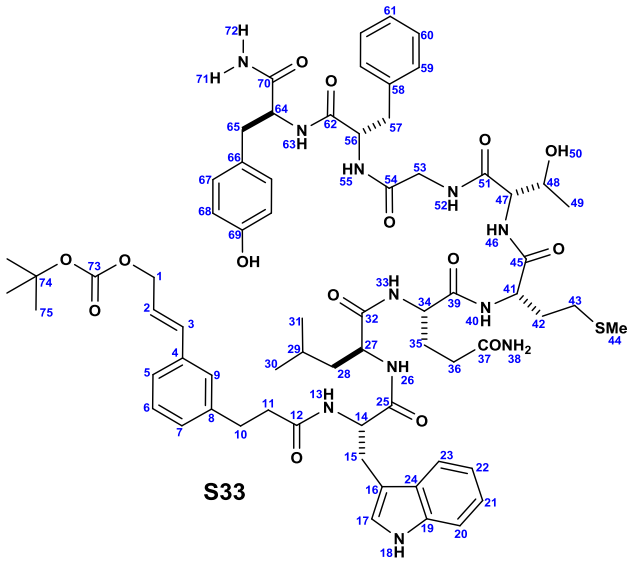


39

reson.	^{13}C	^{1}H
1	67.94	4.61
2	124.76	6.40
3	132.25	6.64
4	136.28	-
5	123.67	7.24
6	128.30	7.22
7	127.90	7.03
8	141.64	-
9	126.36	7.22
10	33.42	2.71
11	39.02	2.39
12	172.47	-
13	-	8.11
14	56.70	4.43
15	27.06	2.91, 3.10
16	110.05	-
17	122.96	7.07
18	-	10.74
19	135.91	-
20	111.18	7.31
21	121.03	7.03
22	118.40	6.96
23	118.25	7.53
24	127.29	-
25	172.51	-
26	-	7.83
27	51.52	4.15
28	40.25	1.42
29	21.47	1.42
30	21.47	0.75
31	22.96	0.78
32	172.16	-
33	-	8.01
34	52.62	4.14
35	27.11	1.78,1.91
36	31.27	1.94,2.09
37	174.45	-
38	-	6.74,7.27
39	171.86	-
40	-	7.95
41	51.99	4.39
42	31.20	1.80,1.93
43	29.45	2.35,2.41

reson.	^{13}C	^{1}H
44	14.57	1.90
45	171.65	-
46	-	7.70
47	58.59	4.14
48	66.56	3.98
49	19.69	1.01
50	-	5.07
51	171.61	-
52	-	8.01
53	41.93	3.58,3.67
54	170.93	-
55	-	8.08
56	53.98	4.47
57	37.33	2.69,2.98
58	137.75	-
59	129.31	7.17
60	128.56	7.22
61	128.72	7.19
62	168.83	-
63	-	8.00
64	54.35	4.33
65	36.55	2.74,2.94
66	129.95	-
67	129.92	7.14
68	114.38	6.85
69	157.07	-
70	171.24	-
71	-	7.07
72	-	7.25

9:1 DMSO-d_6:H_2O (600 MHz)



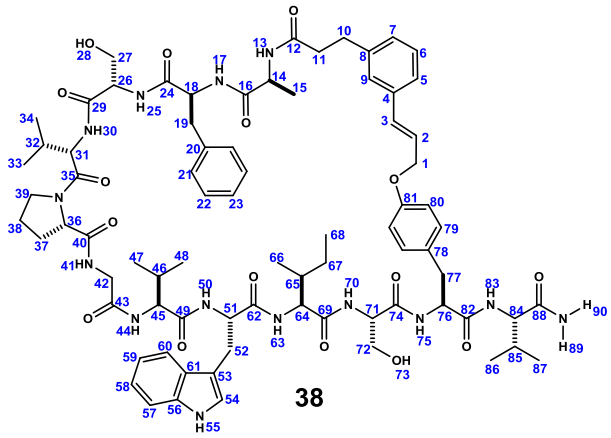
S33

reson.	^{13}C	^{1}H
1		4.63
2		6.28
3		6.57
4		-
5		7.23
6		7.23
7		6.99
8		-
9		7.18
10		2.65
11		2.34
12		-
13	-	8.03
14	53.70	4.51
15		2.88, 3.09
16		-
17		7.06
18	-	10.71
19		-
20		7.31
21		7.06
22		6.96
23		7.56
24		-
25		-
26	-	8.02
27	51.41	4.25
28		1.43
29		1.52
30		0.79
31		0.83
32		-
33	-	8.07
34	52.40	4.21
35		1.71
36		2.12
37		-
38	-	6.78, 7.30
39		-
40	-	8.10
41	52.15	4.40
42		1.81, 1.94
43		2.38, 2.44

reson	^{13}C	^{1}H
44		1.96
45		-
46	-	7.70
47	58.62	4.15
48		3.97
49		1.01
50	-	n/o
51		-
52	-	8.05
53	42.17	3.63, 3.68
54		-
55	-	8.00
56	54.45	4.41
57		2.68, 2.91
58		-
59		7.13
60		7.20
61		7.15
62		-
63	-	7.97
64	54.60	4.29
65		2.70, 2.88
66		-
67		7.01
68		6.63
69		-
70		-
71		7.01
72		7.20
73		-
74		-
75		1.40

9:1 DMSO-d_6:H_2O (600 MHz)

Resonance assignment for AFSVPGVWISYV

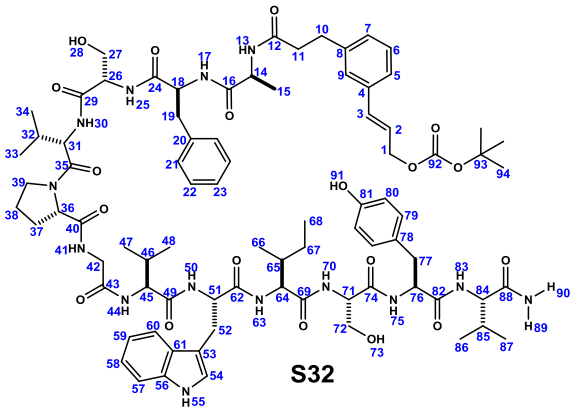


38

reson.	^{13}C	^{1}H
1		4.59
2		6.40
3		6.65
4		-
5		7.23
6		7.24
7		7.08
8		-
9		7.24
10		2.40
11		2.76
12		-
13		8.10
14	49.17	4.05
15		1.02
16		-
17		7.79
18	54.07	4.46
19		2.80, 3.09
20		-
21		7.15
22		7.18
23		7.17
24		-
25		8.00
26	55.23	4.31
27		3.58
28		n/o
29		-
30		7.73
31	55.61	4.33
32		1.96
33		0.81
34		0.86
35		-
36	60.15	4.23
37		1.77, 2.03
38		1.77, 1.90
39		3.53, 3.66
40		-
41		8.29
42	42.30	3.54, 3.77
43		-
44		7.41
45	57.89	4.08
46		1.92
47		0.71
48		0.73

reson.	^{13}C	^{1}H
49		-
50		8.10
51	53.78	4.52
52		2.91, 3.07
53		-
54		7.08
55		10.64
56		-
57		7.29
58		7.02
59		6.93
60		7.51
61		-
62		-
63		7.74
64	57.19	4.11
65		1.60
66		0.70
67		0.97, 1.31
68		0.65
69		-
70		7.88
71	55.23	4.28
72		3.52
73		n/o
74		-
75		8.06
76	54.65	4.54
77		2.76, 3.00
78		-
79		7.13
80		6.79
81		-
82		-
83		7.67
84	57.97	4.06
85		1.95
86		0.81
87		0.83
88		-
89		7.08
90		7.33

9:1 DMSO-d_6:H_2O (600 MHz)



S32

reson.	^{13}C	^{1}H
1		4.63
2		6.31
3		6.60
4		-
5		7.25
6		7.22
7		7.08
8		-
9		7.26
10		2.37
11		2.74
12		-
13		8.11
14	48.68	4.12
15		1.04
16		-
17		7.96
18	53.85	4.48
19		2.76, 3.03
20		-
21		7.18
22		7.20
23		7.15
24		-
25		8.09
26	55.72	4.32
27		3.55
28		n/o
29		-
30		7.92
31	55.32	4.32
32		1.96
33		0.81
34		0.86
35		-
36	59.92	4.24
37		1.78, 2.02
38		1.78, 1.89
39		3.46, 3.49
40		-
41		8.22
42	42.14	3.63, 3.70
43		-
44		7.61
45	57.74	4.12
46		1.90
47		0.71
48		0.74

reson.	^{13}C	^{1}H
49		-
50		8.26
51	53.53	4.53
52		2.91, 3.06
53		-
54		7.08
55		10.72
56		-
57		7.29
58		7.03
59		6.94
60		7.54
61		-
62		-
63		7.89
64	57.23	4.16
65		1.65
66		0.73
67		0.99, 1.33
68		0.73
69		-
70		8.02
71	55.22	4.28
72		3.48, 3.51
73		n/o
74		-
75		8.03
76	54.64	4.42
77		2.71, 2.92
78		-
79		6.98
80		6.58
81		-
82		-
83		7.77
84	57.98	4.03
85		1.92
86		0.79
87		0.81
88		-
89		7.14
90		7.36
91		n/o
92		-
93		-
94		1.39

9:1 DMSO-d_6:H_2O (600 MHz)

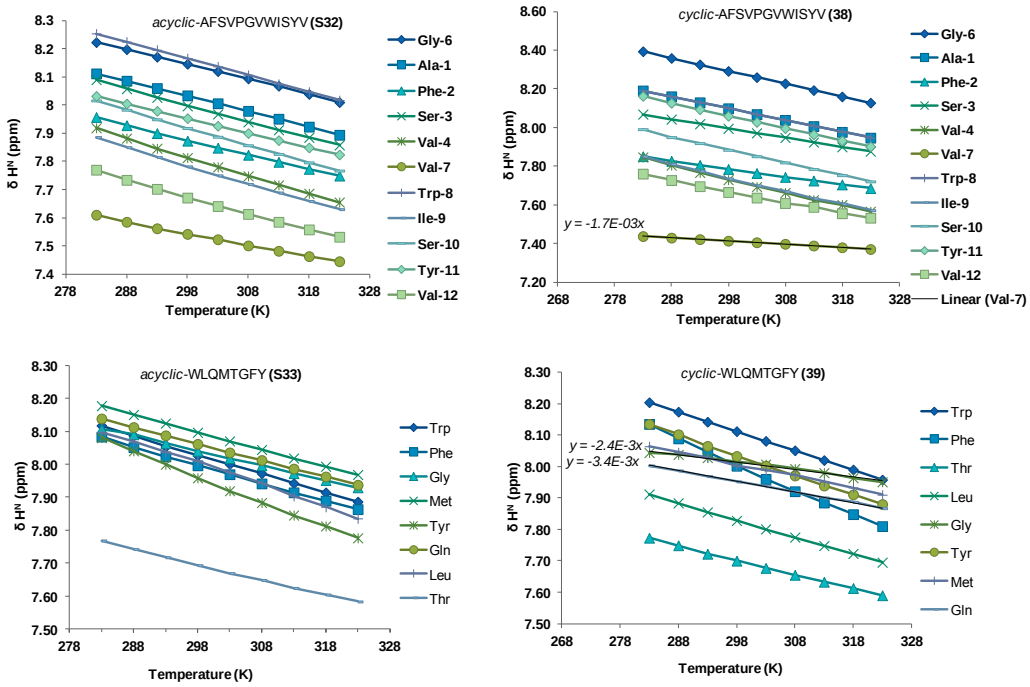
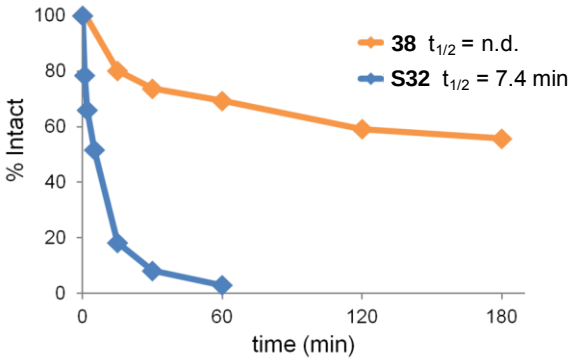
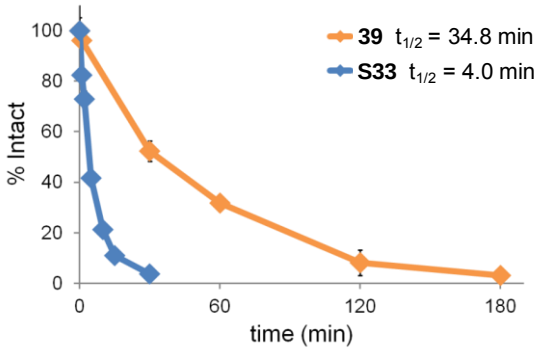


Figure S1. Temperature dependence of backbone H^N chemical shifts for **S32**, **S33**, **38**, and **39**.

Proteolytic degradation assay:

Stock solutions of α-chymotrypsin (bovine type II, 61.75 U/mg) were freshly prepared in 1mM HCl, and diluted into assay buffer (56 mMTris pH 7.8, 560μM $CaCl_2$, 0.1%*v* Tween-80) just prior to addition of the substrate. Reactions were conducted in silanized glass vials. The reaction was initiated by addition of DMSO stock solution (50 μM) of the macrocycle**39** or linear precursor **S33**to give a final substrate concentration of 5 μM, 50μg/mL α-chymotrypsin, and 10%*v* DMSO. Control reactions contained BSA instead of α-chymotrypsin. Aliquots were removed in triplicate at 1, 2, 5, 10, 15 and 30min (acyclic) or 1, 15, 30, 60, 120, and 180 min (cyclic), and diluted 1:1 with *N,N*-DMF containing 1%*v* TFA, which resulted in a pH < 2. Time course data were obtained by HPLC-MS or HPLC-UV analysis and quantification against external calibration curves. Compound **38** was assayed in the same manner, except that Tween-80 was omitted from the reaction buffer and the initial substrate and enzyme concentrations were 50 μM and 5 μg/mL, respectively. No loss was observed in control reactions. Kinetic constants were determined by least squares fitting to the first order rate law $[S] = c + A(1 - e^{-kt})$ using the Solver tool in Microsoft Excel.Half lives were calculated as 0.693/k. α-Chymotrypsin cleavage sites were determined by purification of products from short reaction times, and analysis by HPLC-MS (Agilent 6130) for linear precursors **S32**and **S33** and by infusion ESI-MS/MS (BrukerSolarix) for macrocycles **38**and **39**.





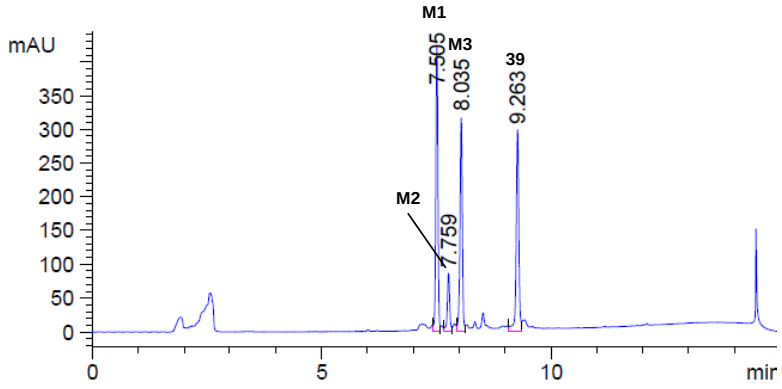
Analytical HPLC conditions for 38:
Column: Agilent Eclipse XBD C18, 4.6x150mm, 5µm
Solvent A: H_2O + 0.1%v TFA
Solvent B: ACN + 0.1%v TFA
Injection Vol.: 40µL
Flow rate: 1.00 ml/min

Time (min)	%B
0.0	30
1.0	30
11.0	100
12.0	30
17.0	30

Analytical HPLC Conditions for 39:
Column: Agilent SB-Aq, 4.6x50mm, 1.8µm
Solvent A: H_2O + 0.1%v TFA
Solvent B: ACN + 0.1%v TFA
Injection Vol.: 40µL
Flow rate: 1.00 ml/min

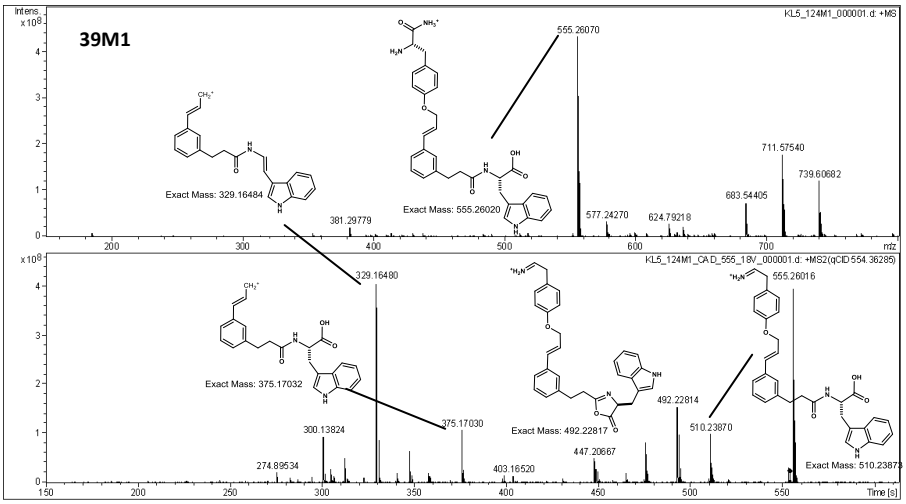
Time (min)	%B
0.0	30
0.5	30
4.5	100
4.6	30
7.0	30

ESI-MS/MS data for proteolysis of 39



Preparative HPLC Conditions for 39:
Column: Waters Sunfire, 10x250mm, 5µm
Solvent A: H_2O + 0.1%v TFA
Solvent B: ACN + 0.1%v TFA
Flow rate: 7.0 ml/min

Time (min)	%B
0.0	20
2.0	20
12.0	100
13.0	20
15.0	20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683.54405
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624.79218
381.29779
Exact Mass: 375.17032
Exact Mass: 492.22817
Exact Mass: 510.23873
329.16480
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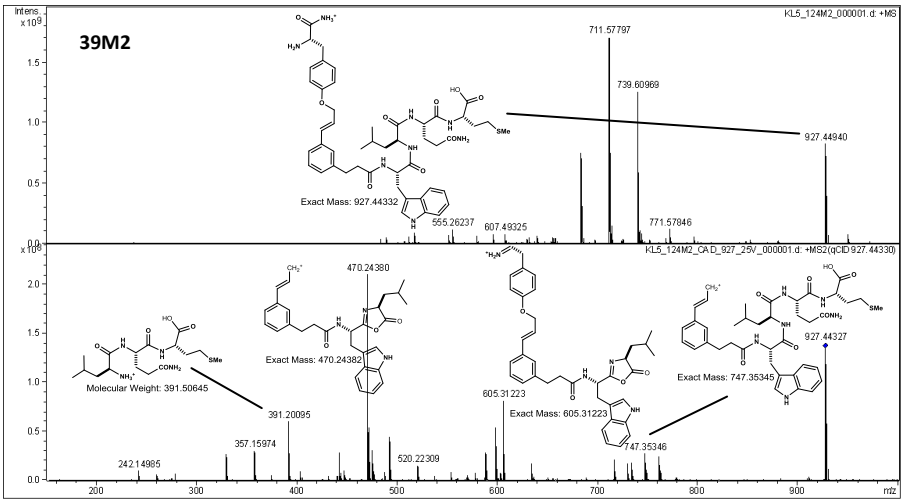
447.20667
274.89534
403.18520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Exact Mass: 470.24382
Exact Mass: 605.31223
Exact Mass: 747.35345
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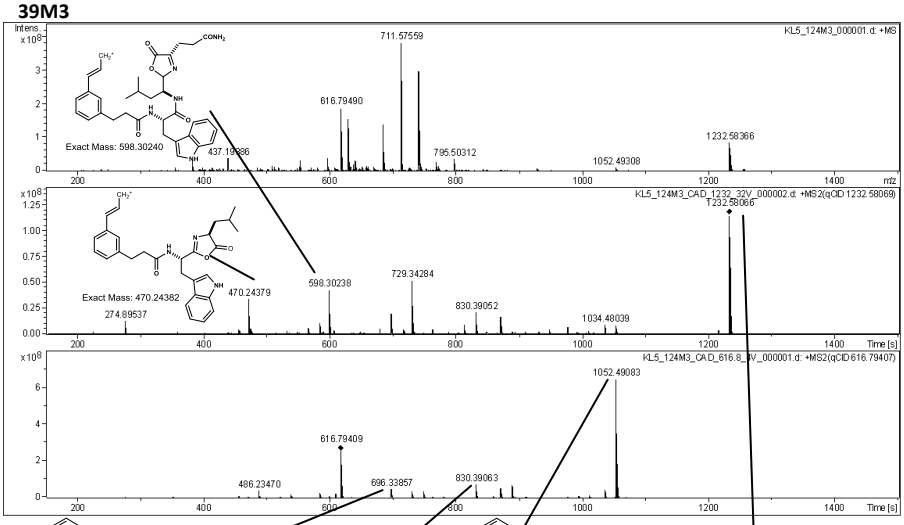
927.44327
605.31223
391.20095
357.15974
747.35346
242.14985
520.22309

39M3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616.79409
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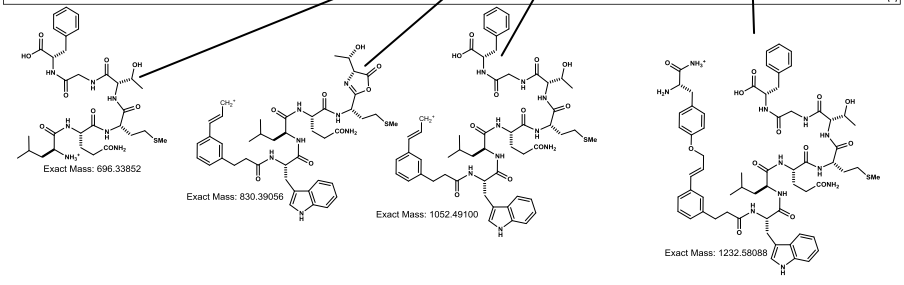
830.39063


Exact Mass: 696.33852
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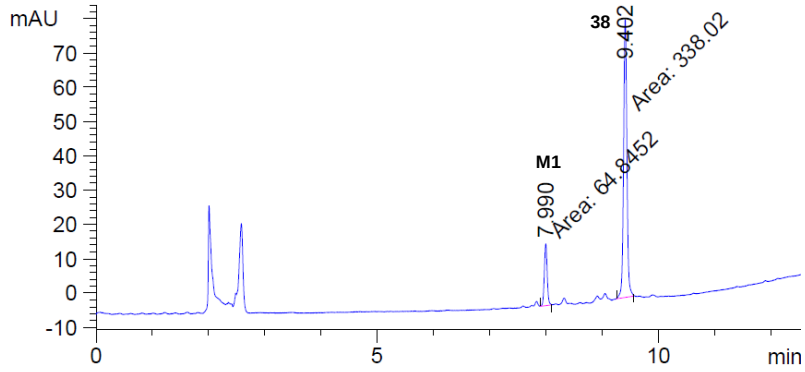
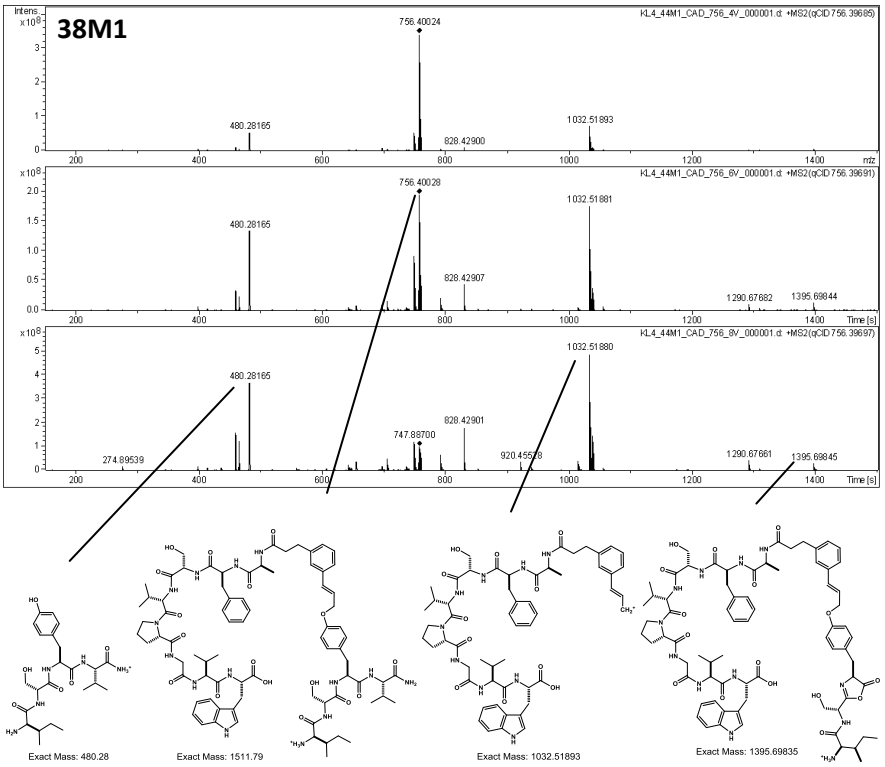
Exact Mass: 1052.49100
Exact Mass: 1232.58088

ESI-MS/MS data for proteolysis of 38



Preparative HPLC Conditions for 38:
Column: Waters Sunfire, 10x250mm, 5µm
Solvent A: H_2O + 0.1%v TFA
Solvent B: ACN + 0.1%v TFA
Flow rate: 7.0 ml/min

Time (min)	%B
0.0	20
2.0	20
12.0	100
13.0	20
15.0	20



Peptide Synthesis:

C-terminal carboxamide peptides were synthesized manually using standard Fmoc solid phase synthesis protocols on Rink Amide MBHA resin (200-400 mesh, 0.70 mmol/g, 1% DVB) on 0.25-0.50 mmolscale using a fritted glass reaction vessel. Fmoc-deprotection was achieved with 20% piperidine in DMF (2 x 30 min). The reaction vessel was washed with DMF (3x) and CH_2Cl_2 (2x). The vessel was then charged with the appropriate Fmoc-amino acid (4 equiv) and TBTU (4 equiv) followed by DMF (10-20 ml) and iPr_2NEt (10 eq). The resin was agitated for 2 hours, drained, and washed with DMF (3X). After all coupling were completed the resin was cleaved with TFA/thioanisole/water/TIPS (90:2.5:5:2.5) for 2 hours. The cleaved resin was removed by filtration and the filtrate was concentrated under vacuum. The peptide was precipitated with ether and isolated by centrifugation. The peptide pellet was repeated washed with Et_2O to ensure complete removal of cleavage reagents. Fmoc-4-(Boc-amino)-L-phenylalanine was used to prepare 4-aminophenylalanine containing peptides.

C-terminal carboxylate peptides were prepared on Wang Resin (0.84 mmol/g). The first amino acid (2.5 equiv) was pre-activated with DIC (2.5 equiv) in DMF (5-10 ml) and then added the pre-swelled resin (1 equiv) and DMAP (0.1 equiv) in DMF (5-10 ml). The resin suspension was agitated for 3 hours. The subsequent FMOC deprotections, couplings, and resin cleavage were performed as described above.

H-Gly-Trp-Thi-5-Hydroxytryptamine was prepared by attachment of Fmoc-5-hydroxytryptamine to 2-Chlorotritylchloride resin (100-200 mesh, 0.84 mmol/g) via the phenolic oxygen as follows: A solution of Fmoc-5-hydroxytryptamine (398 mg, 1.00 mmol) in dichloromethane (10 ml) was added to a flask containing 2-Chlorotritylchloride resin (840 mg, 1.00 mmol) followed by iPr_2NEt (174 ul, 1.00 mmol). The mixture was agitated for 10 minutes then an addition aliquot of iPr_2NEt (261 ul, 1.50 mmol) was added and the mixture was agitated for an addition 2 hours. Methanol (500 uL) was added and the resin was mixed for an addition 15 minutes, then filtered through a sintered glass funnel. The resin was washed with CH_2Cl_2 (3x), DMF (3x), CH_3OH (3x), and dried under high vacuum. The substitution was estimated by mass. Chain elongation was performed as described above. Cleavage from the resin was achieved with 1:1:8 AcOH:TFE:CH_2Cl_2 for 2 hours.

Synthesis of 1:

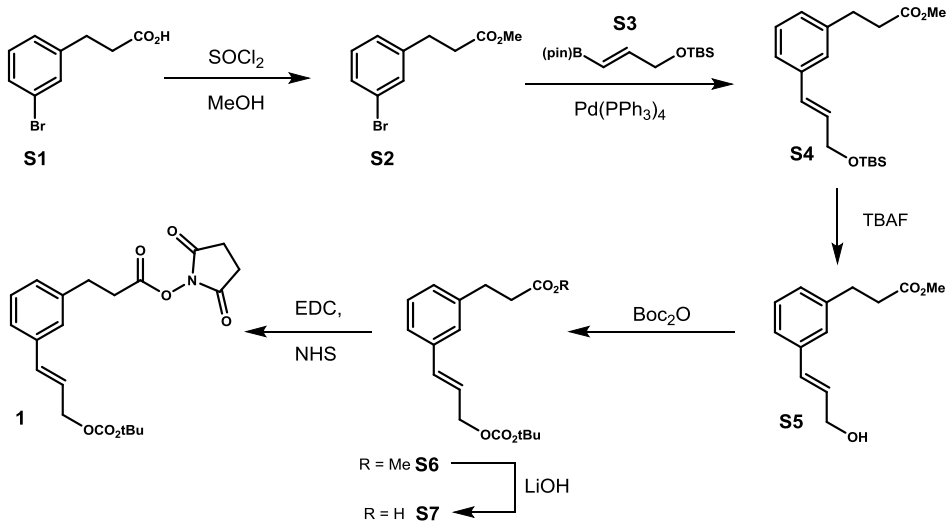


Figure S2. Synthetic route to **1**.

methyl 3-(3-bromophenyl)propanoate (S2). To a solution of 3-bromophenylpropanoic acid **S1** (11.52 g, 50.29 mmol) in anhydrous methanol (200 ml) was added dropwise thionyl chloride (7.18 g, 60.35 mmol) over 30 minutes and allowed to stir for 18h at room temperature. Rotary evaporation gave crude ester **S2** as a colorless oil. Purification by column chromatography (SiO_2, 15% EtOAc/hexanes) afforded **S2** (11.80 g, 97%). ^1H NMR ($CDCl_3$, 500 MHz): δ 7.29-7.35 (m, 2H), 7.08-7.15 (m, 2H), 3.67 (s, 3H), 2.90 (t,

J= 7.7 Hz, 2H), 2.62 (t, *J* = 7.7 Hz, 2H).^{13}C NMR ($CDCl_3$, 125 MHz): δ 172.9, 142.9, 131.4, 130.1, 129.4, 127.0, 122.5, 51.7, 35.3, 30.5. MS (ESI) Calculated for $C_{11}H_{11}BrO_2$ $[M+H]^+$: 243.0, found 242.6.

(E)-methyl 3-(3-(3-((tert-butyldimethylsilyl)oxy)prop-1-en-1-yl)phenyl)propanoate (S4). To a solution of **S2** (11.80 g, 48.54 mmol) in 4:1 THF/H_2O (160 ml) was added boronic ester **S3** (17.38g, 58.25 mmol) followed by K_2CO_3 (20.13 g, 145.62 mmol). The resulting suspension was degassed by bubbling Argon through the stirred suspension with a needle for 30 minutes. Following addition of $Pd(PPh_3)_4$ (1.68 g, 1.45 mmol) the reaction was heated to 75 °C in an oil bath for 48h or until complete consumption of **S4** determined by HPLC/UV at 220 nm. The reaction was cooled, diluted with EtOAc (250 ml) and washed sequentially water, and brine. The organic layer was dried over Na_2SO_4, filtered and evaporated to give crude **S3** as an amber viscous oil which was used without further purification.^{1}H NMR ($CDCl_3$, 500 MHz): δ 7.19-7.25 (m, 3H), 7.04-7.08 (m, 1H), 6.56 (dt, J = 15.9, 1.7 Hz, 1H), 6.27 (dt, J = 15.9, 5.0 Hz, 1H), 4.34 (dd, J = 5.0, 1.7 Hz, 2H), 3.67 (s, 3H), 2.94 (t, J = 7.9 Hz, 2H), 2.63 (t, J = 7.9 Hz, 2H), 0.94 (s, 9H), 0.11 (s, 6H).^{13}C NMR ($CDCl_3$, 125 MHz): δ 173.4, 140.7, 137.3, 129.32, 129.27, 128.7, 127.3, 126.4, 124.4, 63.9, 51.7, 35.7, 30.9, 26.0, 18.5, -5.1. MS (ESI) Calculated for $C_{19}H_{30}O_3Si$ $[M+Na]^+$: 357.2, found 357.4.

(E)-methyl 3-(3-(3-hydroxyprop-1-en-1-yl)phenyl)propanoate (S5). To a solution of **S4** (16.06 g, 48.0 mmol) in THF (160 ml) at room temperature was added TBAF (1.0M/THF, 64.9 ml, 64.9 mmol). The resulting orange solutionwas allowed to stir for 2 hours. The reaction mixture wastransferred to a seperatory funnel, diluted with EtOAc (250 ml) and washed sequentially with sat. NH_4Cl and brine. The organic layer was dried over Na_2SO_4, filtered, and evaporated in vacuo to give crude **S5** as a viscous amber oil. Purification by column chromatography (SiO_2, gradient 30-65% EtOAc/hexanes) provides pure cinnamyl alcohol **S5** as a colorless oil (8.95 g, 85%). ^{1}H NMR ($CDCl_3$, 400 MHz): δ7.16-7.25 (m, 3H), 7.02-7.1 (m, 1H), 6.57 (dt, J = 16.0, 1.3 Hz, 1H), 6.33 (dt, 16.0, 5.7 Hz, 1H), 4.29 (dd, J = 3.7, 3.7 Hz, 2H), 3.65 (s, 3H), 2.92 (t, J = 7.9 Hz, 2H), 2.61 (t, J = 7.9 Hz, 2H), 2.29 (br. s, 1H).^{13}C NMR ($CDCl_3$, 100 MHz): δ 173.4, 140.8, 137.0, 130.8, 128.8, 127.6, 126.5, 124.4, 63.5, 51.7, 35.6, 30.8.MS (ESI) Calculated for $C_{13}H_{16}O_3$ $[M+Na]^+$: 243.1, found 243.0.

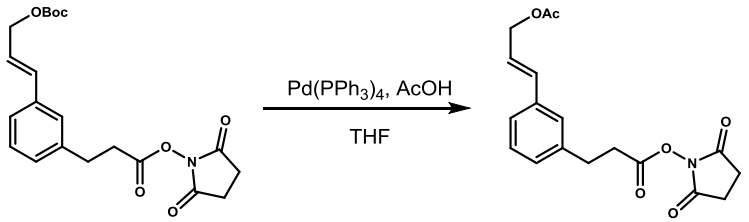
(E)-methyl 3-(3-(3-((tert-butoxycarbonyl)oxy)prop-1-en-1-yl)phenyl)propanoate (S6). To a solution of S5 (7.5 g, 34.1 mmol) in CH_2Cl_2 (175 ml) at room temperature was added NaOH (15 wt% aqueous, 35 ml) followed by tetrabutylammonium bisulfate (347 mg, 1.02 mmol). Ditertbutyldicarbonate (11.15 g, 51.1 mmol) was subsequently added in one portion and the mixture was allowed to stir overnight at room temperature. The reaction mixture was diluted with CH_2Cl_2 (200 ml) and washed with water and brine. The colorless crude oil obtained (**S6**) was used without further purification.^{1}H NMR ($CDCl_3$, 500 MHz): δ 7.20-7.25 (m, 3H), 7.06-7.12 (m, 1H), 6.63 (br. d, J = 15.9 Hz, 1H), 6.27 (dt, J = 15.9, 6.4 Hz, 1H), 4.70 (dd, J = 6.4, 1.2 Hz, 2H), 3.66 (s, 3H), 2.93 (t, J = 7.9 Hz, 2H), 2.62 (t, J = 7.9 Hz, 2H), 1.49 (s, 9H).^{13}C NMR ($CDCl_3$, 125 MHz): δ 173.3, 153.4, 140.9, 136.4, 134.3, 128.8, 128.1, 126.7, 124.7, 123.0, 82.2, 67.5, 51.7, 35.6, 30.8, 27.8.MS (ESI) Calculated for $C_{18}H_{24}O_5$ $[M+Na]^+$: 343.2, found 343.2.

(E)-3-(3-(3-((tert-butoxycarbonyl)oxy)prop-1-en-1-yl)phenyl)propanoic acid (S7). Crude methyl ester **S6** (10.92 g, 34.1 mmol) was dissolved in THF (170 ml) and aqueous LiOH (1.0 M, 52.0 ml) was added. The reaction was stirred for 4 hours at room temperature. The reaction was then diluted with EtOAc (300 ml) and 1.0 M HCl was added until the aqueous layer has a pH < 2. The organic layer was separated and washed with water and brine, dried over Na_2SO_4, filtered and the solvent was removed by rotary evaporation to give **S7** (8.4 g, 80% over 2 steps) as an oil which was>95% pure by HPLC/UV.^{1}H NMR ($CDCl_3$, 500 MHz): δ 7.21-7.27 (m, 3H), 7.08-7.13 (m, 1H), 6.64 (d, J = 15.9 Hz, 1H), 6.29 (dt, J = 15.8, 6.4 Hz, 1H), 4.71 (br. d, J = 6.3 Hz, 2H), 2.95 (t, J = 7.9 Hz, 2H), 2.7 (t, J = 7.8 Hz, 1H), 1.5 (s, 9H).^{13}C NMR ($CDCl_3$, 125 MHz): δ 178.0, 153.4, 140.5, 136.5, 134.3, 128.9, 128.1, 126.7, 124.8, 123.1, 82.3, 67.4, 35.3, 30.5, 27.8. MS (ESI-Neg) Calculated for $C_{17}H_{22}O_5$ $[M-H]^-$: 305.1, found 305.2.

(E)-2,5-dioxopyrrolidin-1-yl 3-(3-(3-((tert-butoxycarbonyl)oxy)prop-1-en-1-yl)phenyl)propanoate (1).

To a solution of **S7** (5.9 g, 19.3 mmol) in CH_2Cl_2 (60 ml, 0.35 M) at room temperature was added N-hydroxysuccinimide (2.66g, 23.11 mmol) followed by EDC-HCl (4.06 g, 21.18 mmol). The reaction was stirred for 3 hours then transferred to a separatory funnel and washed sequentially with 1N HCl, H_2O and brine. The organic layer was dried over Na_2SO_4, filtered and concentrated to give an amber oil. Purification by column chromatography (SiO_2, 35% EtOAc/hexane) afforded succinimidyl ester **1** as a white solid (6.09 g, 15.1 mmol, 78 %).Analytically pure crystals may be obtained by slow evaporation from THF/hexanes (2:1). ^{1}H NMR ($CDCl_3$, 500 MHz): δ

7.24-7.28 (m, 3H), 7.11-7.15 (m, 1H), 6.65 (br. d, J = 15.9 Hz, 1H), 6.3 (dt, J = 15.9, 6.4 Hz, 1H), 4.72 (dd, J = 6.4, 1.3 Hz, 2H), 3.05 (t, J = 7.8 Hz, 2H), 2.92 (t, J = 7.8 Hz, 2H), 2.84 (br. s, 4H), 1.5 (s, 9H). ^{13}C NMR ($CDCl_3$, 125 MHz): δ169.0, 167.8, 153.4, 139.4, 136.7, 134.1,129.0, 128.0, 126.7, 125.1, 123.3, 82.2, 67.4, 32.6, 30.4, 27.8, 25.6.IR (neat) v = 2947, 1820, 1781, 1732, 1370, 1269, 1252, 1211, 1160, 1068, 972, 930, 793 cm^{-1}. MS (ESI) Calculated for $C_{21}H_{25}NO_7$ $[M+Na]^+$: 426.2, found 426.2.



(*E*)-2,5-dioxopyrrolidin-1-yl 3-(3-(3-acetoxyprop-1-en-1-yl)phenyl)propanoate (S8). A solution of 1 (558 mg, 1.38mmol, 1 equiv.) and AcOH (1.97 mL, 34.5mmol, 25 equiv.) in THF (20 ml) was sparged with argon for 15 minutes. The septa was removed briefly to allow the addition of $Pd(PPh_3)_4$ (40 mg, 0.035mmol, 2.5 mol%). The reaction was stirred for 4 hours then diluted with EtOAc and transferred to a separatory funnel. The organic layer was washed with saturated aq. $NaHCO_3$, H_2O, and brine, dried over Na_2SO_4 and evaporated to give a yellow solid. Purification by column chromatography (SiO_2, gradient 20-60% EtOAc/Hexane) afforded the title compound (443 mg, 1.28mmol, 93 %) as a off-white solid.NMR ($CDCl_3$, 500 MHz): δ 7.22-7.25 (m, 3H), 7.08-7.12 (m, 1H), 6.61 (dt, J = 16.0, 1.1 Hz, 1H), 6.27 (dt, J = 16.0, 6.4 Hz, 1H), 4.7 (dd, J = 6.4, 1.3 Hz, 2H), 3.02 (t, J = 7.8 Hz, 2H), 2.89 (t, J = 7.7 Hz, 2H), 2.79 (br. s, 4H), 2.08 (s, 3H). ^{13}C NMR ($CDCl_3$, 125 MHz): δ 170.8, 169.2, 167.9, 139.5, 136.6, 133.8, 129.0, 128.0, 126.6, 125.0, 123.6, 65.0, 32.5, 30.3, 25.6, 21.0.MS (ESI) Calculated for $C_{18}H_{19}NO_6$ $[M+Na]^+$: 368.1, found 368.1

Coupling of 1 to acyclic peptides:

General Procedure A. An oven-dried, screw-capped scintillation vial was charged with appropriate peptide (0.2 mmol) and N-hydroxysuccinimidyl ester **1** (0.20 mmol) followed by addition of anhydrous DMF (2 ml, 0.10 M) and iPr_2NEt (0.8 mmol, 4 equiv.). The reaction was allowed to stir at room temperature until complete conversion as monitored by LC/MS.The solvent is removed under reduced pressure and purified as described below. Compounds purified by preparative HPLC were treated with silica bound tetraalkylaammonium carbonate (Si-CO_3, Silicycle, 0.59 mmol/g, 2 equiv.)for 30 minutes in DMF, and re-concentrated to scavenge residual TFA prior to cyclization.

Palladium-catalyzed macrocyclization:

General Procedure B. An oven-dried vial was charged with acyclic peptide (0.05mmol) and sealed with a septa. The vial was flushed with Argon followed by addition of argon-sparged anhydrous DMF (10 ml, 5 mM). After complete dissolution of the peptide, $Pd(PPh_3)_4$ (0.0025mmol, 5 mol %) in 1:1 THF:DMF (0.5 ml) was added and the reaction was allowed to stir at room temperature for two hours or until complete conversion of starting material as monitored by LC/MS. The solvent is removed under reduced pressure. The resulting residue is reconstituted in DMSO and purified by preparative HPLC as indicated below.

General Procedure C. A solution of catalyst was prepared as follows: An oven-dried, serum-topped vial was placed in a glove bag and charged with $[PdCl(C_3H_5)]_2$ (14 mg, 0.038mmol) and xantphos (55 mg, 0.095mmol). The vial is sealed, removed from the glove bag, and degassed THF (7.0 ml) was addded, followed by degassed DMF (7.0 ml). The resulting yellow solution was stirred under argon for 30 minutes.

To a solution of acyclic peptide (0.05 mmol) in degassed DMF (10 ml, 5 mM) was added catalyst solution (735 uL, 0.04 mol% $[PdCl(C_3H_5)]_2$, 0.10 mol% xantphos). The reaction was allowed to stir at room temperature for two hours or until complete conversion of starting material as monitored by LC/MS. The solvent is removed under reduced pressure. The resulting residue is reconstituted in DMSO and purified by preparative HPLC as indicated below.

General Procedure D. As described in general procedure B with the addition of Cs_2CO_3. An oven-dried vial was charged with acyclic peptide (0.05 mmol) and Cs_2CO_3 (0.10 mmol, 2 equiv) and sealed with a septa. The vial was flushed with Argon followed by addition of

argon-sparged anhydrous DMF or DMSO(10 ml, 5 mM). After complete dissolution of the peptide, $Pd(PPh_3)_4$ (0.0025 mmol, 5 mol %) in 1:1 THF:DMF (0.5 ml) was added and the reaction was allowed to stir at room temperature for two hours or until complete conversion of starting material as monitored by LC/MS. The solvent is removed under reduced pressure. The resulting residue is reconstituted in DMSO and purified by preparative HPLC as indicated below.

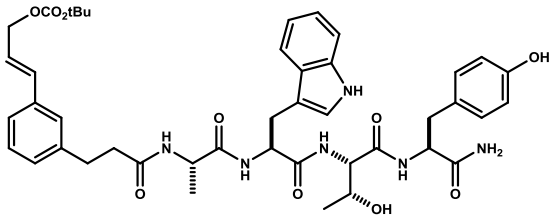
Summary of acylation of macrocyclization efficiency.

Peptide Sequence	Yield % (acylation)	Cyclization Procedure	Yield % (cyclization)	Peptide Sequence	Yield % (acylation)	Cyclization Procedure	Yield % (cyclization)
S M **Y**	71	B	80	**A** V P **H**	78	C	77
IW**Y**	65	B	72	**G**Thi W **5HT**	57	B	75
AV**Y**	67	B	78	**A** F S V P G V W I S **Y** V	72	B	66
AWT**Y**	72	B	78	**T** A W I P Y **H** N V	64	C	69
V M F **Y**	59	B	73	**W** L Q M T G F **Y**	64	B	71
W I Q **Y**	70	B	81	**B-Ala**-P(4-Ar)-**H**	78	C	81
L A R **Y**	66	B	84	**G** T **H**Y	68	C	73
I M S **Y** W	77	B	73	**A** R **H** F	63	C	76
A F T I **Y**	67	B	85	**A** I **H** F	72	C	71
GS F N **Y**	80	B	74	**V** Q Y **H**	56	C	75
S F **F(4-NH_2)**	62	B	72	**V** Q **Y** H	-	C[a]	68
A L **E**Y	68	B	67	H-V **O** M **Y**	62	D[a]	64
A L E **Y**	-	D	76	**H-VO** M Y	-	B	77
FLHyp-**OH**	57	B	71	**N** W T **F(4-NH_2)**	61	B	77
GVW-**OH**	61	B	74	**Orn** T **Y**	97	D[a]	80
AVP**H**-OH	74	C	69				

[a]DMSO Solvent.

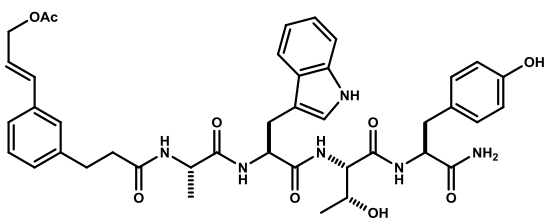
Data for acyclic peptides:

Acyclic-Ala-Trp-Thr-Tyr (2):



Following general procedure A, the corresponding compound was prepared from H-AWTY-NH_2 (•TFA, 163 mg, 0.250 mmol), diisopropylethylamine (174 µL, 0.999 mmol) and reagent **1** (101 mg, 0.250 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (149 mg, 0.180 mmol, 72%). ^{1}H NMR (DMSO-d_6, 600 MHz): δ 10.76 (s, 1H), 9.13 (br s, 1H), 8.05 (d, J = 7.9 Hz, 1H), 7.99 (d, J = 7.3 Hz, 1H), 7.75 (d, J = 8.1 Hz, 1H), 7.67 (d, J = 7.7 Hz, 1H), 7.52 (d, J = 7.9 Hz, 1H), 7.22-7.31 (m, 4H), 7.19 (dd, J = 7.6, 7.6 Hz, 1H), 7.10 (app s, 2H), 7.60 (d, J = 7.4 Hz, 1H), 6.96-7.02 (m, 3H), 6.89 (dd, 7.4, 7.4 Hz, 1H), 6.57-6.63 (m, 3H), 6.30 (dt, 15.9, 6.3 Hz, 1H), 4.63 (d, J = 5.8 Hz, 2H), 4.52 (ddd, J = 8.2, 8.2, 4.8 Hz, 1H), 4.33 (ddd, J = 8.2, 8.2, 5.2 Hz, 1H), 4.24 (dq, J = 7.1, 7.1 Hz, 1H), 4.16 (dd, J = 7.9, 4.1 Hz, 1H), 3.89-3.96 (m, 1H), 3.12 (dd, J = 15.0, 4.2 Hz, 1H), 2.95 (dd, J = 14.8, 9.0 Hz, 1H), 2.90 (dd, J = 14.0, 4.9 Hz, 1H), 2.65-2.78 (m, 3H), 2.28-2.41 (m, 2H), 1.39 (s, 9H), 1.08 (d, J = 6.8 Hz, 3H), 0.90 (d, J = 6.4 Hz, 3H). ^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.2, 172.8, 171.7, 171.6, 169.6, 156.1, 153.1, 142.1, 136.3, 136.2, 133.8, 130.3, 128.9, 128.4, 128.1, 127.7, 126.7, 124.6, 123.9, 123.6, 121.1, 118.7, 118.5, 115.2, 111.5, 110.3, 81.8, 67.2, 66.9, 58.3, 54.6, 53.8, 48.4, 36.9, 36.9, 31.2, 27.7, 19.3, 18.4. MS (ESI) Calculated for $C_{44}H_{54}N_6O_{10}$ $[M\text{-}OCO_2tBu]^+$: 709.3, found 709.0.

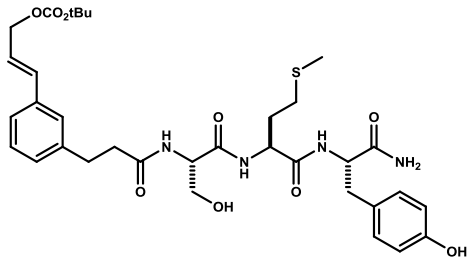
Acyclic-Ala-Trp-Thr-Tyr (3):



Following general procedure A, the corresponding compound was prepared from H-AWTY-NH_2 (•TFA, 195 mg, 0.299 mmol), diisopropylethylamine (208 µL, 1.19 mmol) and reagent **S8** (103 mg, 0.299 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100%

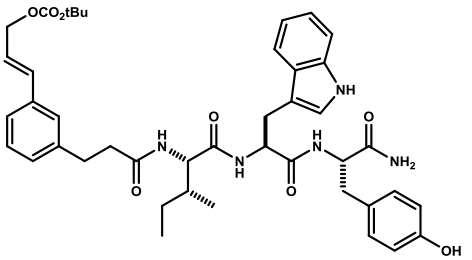
CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (177 mg, 0.230 mmol, 77%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.77 (d, J = 1.9 Hz, 1H), 9.13 (br. s, J = Hz, 1H), 8.05 (d, J = 7.5 Hz, 1H), 7.99 (d, J = 7.3 Hz, 1H), 7.75 (d, J = 8.1 Hz, 1H), 7.67 (d, J = 8.1 Hz, 1H), 7.54 (d, J = 7.9 Hz, 1H), 7.18-7.32 (m, 5H), 7.09-7.13 (m, 2H), 7.07 (br. d, J = 7.3 Hz, 1H), 6.98-7.04 (m, 3H), 6.9 (dd, J = 7.4 Hz, 1H), 6.58-6.64 (m, 3H), 6.31 (dy, J = 15.9, 6.1 Hz, 1H), 4.65 (br. d, J = 6.1 Hz, 2H), 4.53 (ddd, J = 8.3, 8.3, 4.6 Hz, 1H), 4.34 (ddd, J = 8.2, 8.2, 5.3 Hz, 1H), 4.25 (dq, J = 7.2, 7.2 Hz, 1H), 4.18 (dd, J = 8.2, 4.2 Hz, 1H), 3.90-3.97 (m, 1H), 3.13 (dd, J = 15.1, 4.4 Hz, 1H), 2.97 (dd, J = 15.2, 8.7 Hz, 1H), 2.91 (dd, J = 14.1, 5.1 Hz, 1H), 2.66-2.79 (m, 3H), 2.28-2.43 (m, 2H), 2.03 (s, 3H), 1.1 (d, J = 7.1 Hz, 3H), 0.92 (d, J = 6.6 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.4, 172.9, 171.9, 171.7, 170.6, 169.8, 156.2, 142.2, 136.5, 136.4, 133.6, 130.5, 129.1, 128.4, 128.3, 127.8, 126.8, 124.7, 124.1, 124.0, 121.3, 118.9, 118.7, 115.4, 111.7, 110.4, 67.0, 64.8, 58.4, 54.7, 53.9, 48.6, 37.1, 37.0, 31.4, 27.5, 21.2, 19.5, 18.6.MS (ESI) Calculated for $C_{41}H_{48}N_6O_9$ $[M+H]^+$: 769.3, found 769.2.

Acyclic-Ser-Met-Tyr (S9):



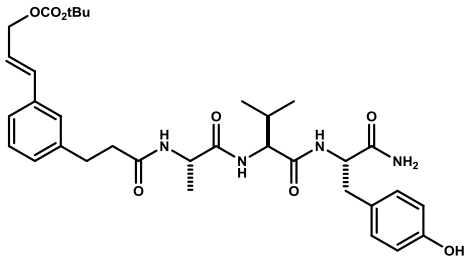
Following general procedure A, the corresponding compound was prepared from H-SMY-NH_2 (•TFA, 20 mg, 0.039 mmol), diisopropylethylamine (27 µL, 0.156 mmol) and reagent **1** (16 mg, 0.039 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (19 mg, 0.028mmol, 71%).^{1}H NMR (DMSO-d_6, 400 MHz): δ 9.14 (br s, 1H), 8.28 (d, J = 6.8 Hz, 1H), 8.04 (d, J = 7.9 Hz, 1H), 7.77 (d, J = 8.4 Hz, 1H), 7.18-7.29 (m, 3H), 7.12 (br s, 1H), 7.08 (d, J = 7.08 Hz, 1H), 7.06 (br s, 1H), 6.95 (d, J = 8.4 Hz, 2H), 6.57-6.63 (m, 3H), 6.31 (dt, J = 16, 6.3 Hz, 1H), 4.64 (dd, 6.3, 1.0 Hz, 2H), 4.34 (ddd, J = 7.0, 7.0, 6.8 Hz, 1H), 4.23 (ddd, J = 9.8, 8.7, 4.6 Hz, 1H), 4.89 (ddd, J = 8.6, 7.1, 4.7 Hz, 1H), 3.57 (dd, J = 10.3, 6.1 Hz, 1H), 3.47 (dd, J = 10.3, 6.9 Hz, 1H), 2.91 (dd, J = 14.0, 4.5 Hz, 1H), 4.77 (t, J = 8 Hz, 2H), 2.54-5.62 (m, 1H), 2.41-2.48 (m, 4H), 2.30-2.37 (m, 1H), 2.23-2.29 (m, 1H), 1.95 (s, 3H), 1.39 (s, 9H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.4, 172.0, 171.5, 170.9, 156.1, 153.1, 142.1, 136.2, 133.8, 130.2, 128.9, 128.4, 128.2, 126.7, 124.6, 123.6, 115.2, 81.8, 67.2, 62.1, 55.0, 54.6, 53.0, 40.8, 36.9, 36.8, 31.3, 31.2, 29.6, 27.7, 14.8.MS (ESI) Calculated for $C_{34}H_{46}N_4O_9S$ $[M-OCO_2tBu]^+$: 569.2,found 568.9.

Acyclic-Ile-Trp-Tyr (S10):



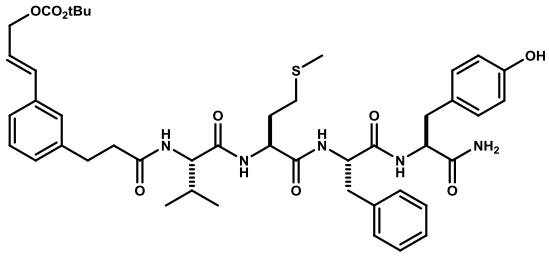
Following general procedure A, the corresponding compound was prepared from H-IWY-NH_2 (•TFA, 203 mg, 0.342 mmol), diisopropylethylamine (238 µL, 1.37 mmol) and reagent **1** (138 mg, 0.342 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (171 mg, 0.222mmol, 65%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.78 (d, J = 1.4 Hz, 1H), 9.12 (s, 1H), 8.02 (d, J = 7.8 Hz, 1H), 7.82 (d, J = 8.6 Hz, 1H), 7.74 (d, J = 8.1 Hz, 1H), 7.51 (d, J = 8 Hz, 1H), 7.26-7.30 (m, 2H), 7.17-7.25 (m, 3H), 7.06-7.10 (m, 2H), 7.00-7.05 (m, 1H), 6.92-6.97 (m, 3H), 6.57-6.64 (m, 3H), 6.31 (dt, J = 15.9, 6.3 Hz, 1H), 4.65 (d, J = 6.1 Hz, 2H), 4.48 (ddd, J = 8.3, 8.3, 4.9 Hz, 1H), 4.62 (ddd, J = 7.8, 7.8, 5.9 Hz, 1H), 4.11 (ddd, J = 8.2, 8.2 Hz, 1H), 3.02 (ddd, J = 14.9, 4.5 Hz, 1H), 2.89 (ddd, J = 14.9, 8.9 Hz, 1H), 2.67-2.84 (m, 4H), 2.36 (ddd, J = 14.5, 8.6, 5.9 Hz, 1H), 1.52-1.62 (m, 1H), 1.41 (s, 9H), 1.32-1.39 (m, 1H), 1.15-1.26 (m, 1H), 0.83-0.95 (m, 1H), 0.69 (t, J = 7.3 Hz, 3H), 0.64 (d, J = 6.9 Hz, 3H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 172.9, 171.7, 171.5, 171.2, 161.8, 156.1, 153.1, 142.0, 136.3, 136.1, 133.8, 130.4, 128.9, 128.4, 128.0, 127.6, 126.7, 124.5, 123.7, 123.5, 121.1, 118.6, 118.5, 115.2, 111.5, 110.3, 81.8, 67.2, 57.2, 54.3, 53.8, 40.8, 37.1, 36.8, 36.6, 31.3, 27.7, 24.5, 24.3, 15.5, 11.2.MS (ESI) Calculated for $C_{43}H_{53}N_5O_8$ $[M-OCO_2tBu]^+$: 650.3, found 649.9.

Acyclic-Ala-Val-Tyr (S11):



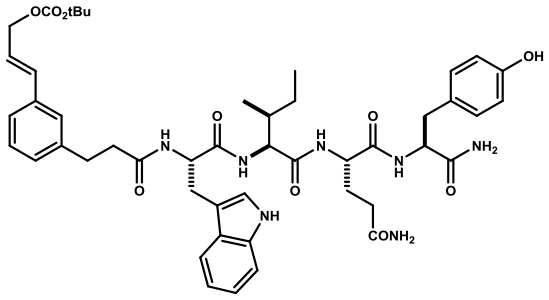
Following general procedure A, the corresponding compound was prepared from H-AVY-NH_2 (•TFA, 18 mg, 0.039 mmol), diisopropylethylamine (27 µL, 0.155 mmol) and reagent **1** (16 mg, 0.039 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (17 mg, 0.026mmol, 17%).^{1}H NMR (DMSO-d_6, 400 MHz): δ 9.11 (br s, 1H), 8.04 (d, J = 7.3 Hz, 1H), 7.92 (s, 1H), 7.45 (d, J = 8.6 Hz, 1H), 7.70 (d, J = 8.9 Hz), 7.26 (br s, 1H), 7.22-7.26 (m, 2H), 7.20 (app t, J = 7.5 Hz, 1H), 7.08 (d, J = 7.4 Hz, 1H), 7.00 (br s, 1H), 6.95 (d, J = 8.3 Hz, 1H), 6.56-6.63 (m, 2H), 6.31 (dt, J = 15.8, 6.3 Hz, 1H), 4.64 (d, J = 6.06 Hz, 2H), 4.26-4.36 (m, 2H), 4.03 (dd, J = 8.4, 6.7 Hz, 1H), 2.83 (dd, J = 13.9, 5.2 Hz, 1H), 2.76 (t, J = 7.7 Hz, 2H), 2.66 (dd, J = 14.0, 8.9 Hz), 2.34-2.44 (m, 1H), 1.88 (dddd, J = 13.3, 6.6, 6.6, 6.6 Hz, 1H), 1.39 (s, 9H), 1.10 (d, J = 7.2 Hz, 3H), 0.71 (d, J = 6.4 Hz, 6H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.2, 172.7, 171.6, 170.7, 156.1, 153.1, 142.0, 136.2, 133.8, 130.3, 128.9, 128.4, 128.1, 126.7, 124.6, 123.6, 115.1, 81.8, 67.2, 58.2, 54.1, 48.4, 40.8, 37.1, 36.9, 31.2, 30.7, 27.7, 19.4, 18.3, 18.2.MS (ESI) Calculated for $C_{34}H_{46}N_4O_8$ [M-OCO_2tBu]$^+$: 521.3, found 521.0.

Acyclic-Val-Met-Phe-Tyr (S12):



Following general procedure A, the corresponding compound was prepared from H-VMFY-NH_2 (•TFA, 149 mg, 0.222 mmol), diisopropylethylamine (155 µL, 0.887 mmol) and reagent **1** (89 mg, 0.222 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (111 mg, 0.131mmol, 59%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 9.13 (s, 1H), 8.00 (d, J = 7.7 Hz, 1H), 7.92 (d, J = 7.9 Hz, 1H), 7.83-7.90 (m, 2H), 7.27 (s, 1H), 7.10-7.25 (m, 9H), 7.08 (d, J = 7.2 Hz, 1H), 7.03 (s, 1H), 6.97 (d, J = 8.1 Hz, 2H), 6.57-6.65 (m, 2H), 6.30 (dt,J = 16.0, 6.0 Hz, 1H), 4.63 (d, J = 6.1 Hz, 2H), 4.45 (ddd, J = 8.2, 8.2, 4.8 Hz, 1H), 4.22-4.35 (m, 2H), 4.07 (dd, J = 7.5, 7.5 Hz, 1H), 2.9 (dd, J = 14.0, 4.2 Hz, 1H), 2.64-2.88 (m, 6H), 2.48-2.56 (m, 1H), 2.26-2.44 (m, 3H), 1.95 (d, 3H), 1.74-1.90 (m, 2H), 1.64-1.73 (m, 1H), 1.39 (s, 9H), 0.69 (d, J = 6.6 Hz, 6H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.0, 172.0, 171.5, 171.1, 170.7, 156.1, 153.1, 142.0, 137.9, 136.2, 133.8, 130.4, 129.4, 128.9, 128.4, 128.3, 128.0, 126.7, 126.5, 124.6, 123.6, 115.2, 81.8, 67.2, 58.2, 54.4, 54.1, 52.2, 37.7, 37.2, 36.8, 32.0, 31.3, 30.5.MS (ESI) Calculated for $C_{45}H_{59}N_5O_9S$ [M+Na]$^+$: 868.4, found 868.9.

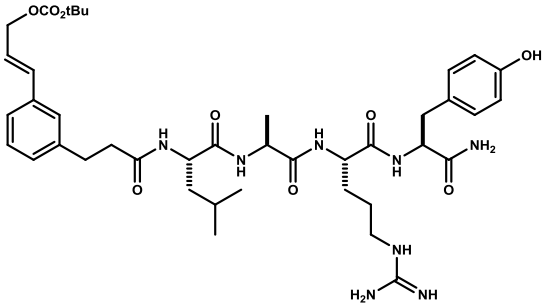
Acyclic-Trp-Ile-Gln-Tyr (S13):



Following general procedure A, the corresponding compound was prepared from H-WIQY-NH_2 (•TFA, 77 mg, 0.107 mmol), diisopropylethylamine (74 µL, 0.427 mmol) and reagent **1** (43 mg, 0.107 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (67 mg, 0.075mmol, 70%).^{1}H NMR (DMSO-d_6, 400 MHz): δ 10.73 (s, 1H), 9.12 (br s, 1H), 8.02-8.06 (m, 2H), 7.90 (d, J = 8.1 Hz, 1H), 7.79 (d, J = 7.9 Hz, 1H), 7.57 (d, J = 7.9 Hz, 1H), 7.30 (br s, 1H), 7.18-7.25 (m, 3H), 7.14 (dd, J = 7.7, 7.7 Hz, 1H), 6.99-7.06 (m, 3H), 6.91-6.99 (m, 4H), 6.478 (br s, 1H), 6.58 (d, J = 7.9 Hz, 2H), 6.56 (d, J = 15.3 Hz, 1H), 6.29 (dt, J = 16.0, 6.2 Hz, 1H), 4.62 (d, J = 6.2 Hz, 2H), 4.58 (ddd, J = 9.3, 9.3, 4.7 Hz, 1H), 4.30 (ddd, J = 7.6, 7.6, 7.6 Hz, 1H), 4.20 (ddd, J = 7.7, 7.7, 7.7 Hz, 1H), 4.14 (dd, J = 7.7, 7.7 Hz, 1H), 3.07 (dd, J = 14.7, 4.1 Hz, 1H), 2.87 (dd, J = 14.6, 9.5 Hz, 1H), 2.82 (dd, J = 14.0, 5.3 Hz, 1H), 2.60-2.66 (m, 2H), 2.32 (dd, J = 7.7, 7.7 Hz, 1H), 2.03-2.08 (m, 1H), 1.81 (dddd, J = 13.8, 6.4, 6.4, 6.4 Hz, 1H), 1.64-1.74 (m, 2H), 1.39 (s, 9H), 0.97-1.07 (m, 1H), 0.76 (t, J = 7.3 Hz, 3H), 0.75 (d, J = 6.8 Hz, 3H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 174.3, 173.1, 172.0, 171.7, 171.2, 171.0, 156.1, 153.1, 142.0, 136.3, 136.1, 133.8, 130.3, 128.9, 128.2, 128.0, 127.7, 126.7, 124.5, 123.9, 123.6,

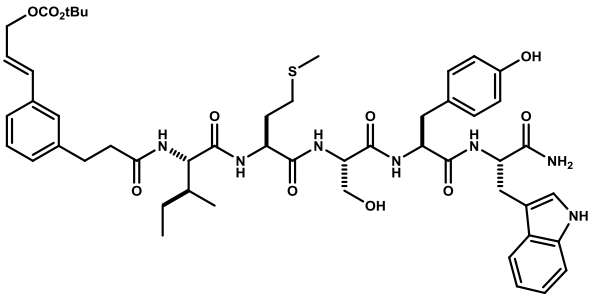
121.1, 118.9, 118.5, 115.2, 111.5, 110.5, 81.8, 67.2, 57.4, 54.4, 53.6, 52.7, 40.4, 37.2.MS (ESI) Calculated for $C_{48}H_{61}N_7O_{10}$ [M-OCO_2tBu]$^+$: 778.4, found 777.9.

Acyclic-Ile-Ala-Arg-Tyr (S14):



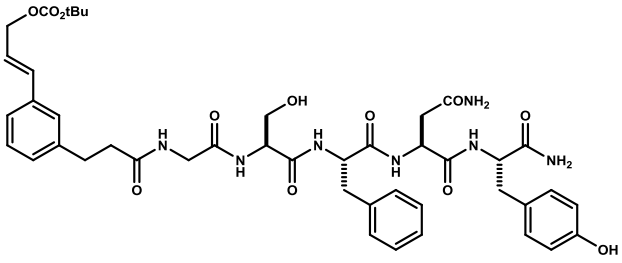
Following general procedure A, the corresponding compound was prepared from H-LARY-NH_2 (•3TFA, 88 mg, 0.102 mmol), diisopropylethylamine (71 µL, 0.408 mmol) and reagent **1** (41 mg, 0.102 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 20-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (54 mg, 0.067mmol, 67%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 8.06 (d, J = 6.8 Hz, 1H), 7.94-7.99 (m, 2H), 7.88 (d, J = 7.7 Hz, 1H), 7.73 (d, J = 7.9 Hz, 1H), 7.55 (dd, J = 5.5, 5.5 Hz, 1H), 7.31 (s, 1H), 7.22-7.27 (m, 2H), 7.19 (dd, J = 7.7, 7.7 Hz, 1H), 7.07 (d, J = 7.4 Hz, 1H), 7.04 (s, 1H), 6.95 (d, J = 8.5 Hz, 2H), 6.56-6.62 (m, 3H), 6.30 (dt, J = 16.2, 6.5 Hz, 1H), 4.63 (d, J = 6.2 Hz, 2H), 4.29 (ddd, J = 8.1, 8.1, 5.4 Hz, 1H), 4.24 (dq, J = 7.8, 7.8 Hz, 1H), 4.12-4.20 (m, 2H), 2.99-3.05 (m, 2H), 2.80-2.87 (m, 2H), 2.72-2.79 (m, 2H), 2.65-2.69 (m, 1H), 2.55 (d, J = 4.7 Hz, 1H), 2.43-2.49 (m, 2H), 2.35-2.42 (m, 1H), 1.59 (dddd, J = 14.3, 6.7, 6.7, 6.7 Hz, 1H), 1.43-1.51 (m, 1H), 1.39 (s, 9H), 1.31-1.37 (m, 2H), 1.15 (d, J = 7.3 Hz, 3H), 0.78 (d, J = 6.4 Hz, 3H), 0.72 (d, J = 6.6 Hz, 3H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.1, 172.6, 172.6, 171.9, 171.1, 161.9, 159.0 (TFA, q, J = 34.5 Hz), 157.1, 156.1, 153.1, 141.9, 136.2, 133.8, 130.4, 128.9, 128.4, 128.0, 126.7, 124.5, 123.6, 116.6 (TFA, q, J = 295 Hz) 115.2, 81.8, 67.2, 54.3, 52.6, 51.2, 48.7, 40.9, 40.7, 37.1, 36.8, 31.2, 29.3, 27.7, 25.1, 24.3, 23.4, 21.7, 18.0.MS (ESI) Calculated for $C_{41}H_{60}N_8O_9$ [M+H]$^+$: 809.4, found 809.0.

Acyclic-Ile-Met-Ser-Tyr-Trp (S15):



Following general procedure A, the corresponding compound was prepared from H-IMSYW-NH_2 (•TFA, 211 mg, 0.292 mmol), diisopropylethylamine (204 µL, 1.17 mmol) and reagent **1** (118 mg, 0.292 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (202 mg, 0.225mmol, 77%).^{1}H NMR (DMSO-d_6, 400 MHz): δ 10.78 (s, 1H), 8.02-8.10 (m, 2H), 7.95 (d, J = 8.2 Hz, 1H), 7.91 (d, J = 6.8 Hz, 1H), 7.78 (d, J = 7.3 hz, 1H), 7.54 (d, J = 7.7 Hz, 1H), 7.29 (d, J = 7.9 Hz, 1H), 7.7 (br s, 1H), 7.21-7.25 (m, 1H), 7.19 (dd, J = 7.6, 7.6 Hz, 1H), 7.14 (br s, 1H), 7.06-7.11 (m, 3H), 7.02 (dd, J = 7.4, 7.4 Hz, 1H), 6.95 (dd, J = 7.4, 7.4 Hz, 1H), 6.88 (d, J = 8.3 Hz, 2H), 6.60 (d, J = 15.9 Hz, 1H), 6.54 (d, J = 8.3 Hz, 2H), 6.30 (dt, J = 16.2, 6.4 Hz, 1H), 4.63 (d, J = 5.5 Hz, 2H), 4.63 (ddd, J = 8.3, 8.3, 5.6 Hz, 1H), 4.23-4.35 (m, 3H), 7.09 (dd, J = 8.2, 8.2 Hz), 3.55 (dd, J = 10.5, 5.9 Hz, 1H), 3.45 (dd, J = 10.4, 6.6 Hz, 1H), 3.12 (dd, J = 14.4, 5.0 Hz, 1H), 2.88 (dd, J = 15.1, 8.9 Hz), 2.71-2.82 (m, 3H), 2.60 (dd, J = 14.3, 9.1 Hz, 1H), 2.30-2.43 (m, 4H), 1.82-1.90 (1H), 1.70-1.79 (m, 1H), 1.57-1.65 (m, 1H), 1.39 (s, 9H), 1.23-1.32 (m, 1H), 0.90-1.0 (m, 1H), 0.67-0.74 (m, 6H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.6, 171.8, 171.7, 171.3, 170.9, 170.5, 156.1, 153.1, 141.9, 136.4, 136.1, 133.8, 130.3, 128.9, 128.4, 127.9, 127.6, 126.7, 124.5, 123.8, 123.6, 121.2, 118.7, 118.6, 115.2, 111.6, 110.5, 81.8, 67.2, 62.0, 57.2, 55.2, 55.1.MS (ESI) Calculated for $C_{51}H_{67}N_7O_{11}S$ [M-OCO_2tBu]$^+$: 868.4, found 867.9.

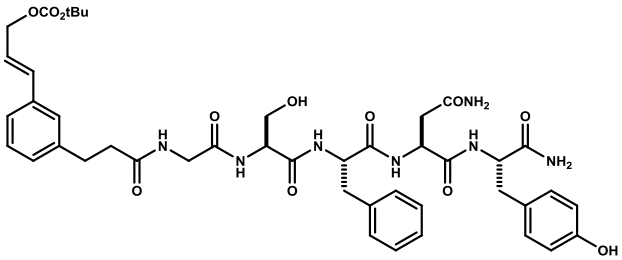
Acyclic-Ala-Phe-Thr-Ile-Tyr (S16):



Following general procedure A, the corresponding compound was prepared from H-AFTIY-NH_2 (•TFA, 31 mg, 0.043 mmol), diisopropylethylamine (30 µL, 0.171 mmol) and reagent **1** (17 mg, 0.043 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1%

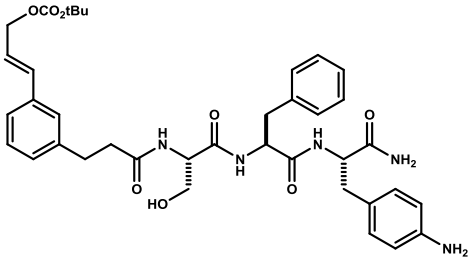
TFA. The fractions collected were combined and lyophilized (26 mg, 0.029mmol, 67%).[1]H NMR (DMSO-d_6, 400 MHz): δ 8.00 (d, J = 8.28 Hz, 1H), 7.99 (d, J = 7.92 Hz, 1H), 7.87 (d, J = 8.1 Hz, 1H), 7.75 (d, J = 7.9 Hz, 1H), 7.69 (d, J = 8.1 Hz, 1H), 7.16-7.26 (m, 7H), 7.11-7.15 (m, 1H), 7.10 (br s, 1H), 7.07 (d, J = 7.9 Hz, 1H), 7.03 (br s, 1H), 6.95 (d, J = 8.9 Hz, 2H), 6.56-6.62 (m, 3H), 6.30 (dt, J = 15.8, 6.2 Hz, 1H), 4.63 (dd, J = 6.0, 0.9 Hz, 2H), 4.53 (ddd, J = 8.8, 8.8, 4.3 Hz, 1H), 4.25-4.35 (m, 2H), 4.21 (dq, J = 7.2, 7.2 Hz), 4.10 (dd, J = 7.7, 6.4 Hz, 1H), 3.95-4.02 (m, 1H), 3.03 (dd, J = 14.2, 4.1 Hz, 1H), 2.85-2.90 (m, 1H), 2.80 (dd, J = 14.1, 9.9 Hz, 1H), 2.70-2.76 (m, 2H), 2.61 (dd, J = 13.9, 9.5 Hz, 1H), 2.29-2.42 (m, 2H), 1.62-1.71 (m, 1H), 1.39 (s, 9H), 1.11-1.21 (m, 1H), 1.06 (d, J = 7.0 Hz, 3H), 0.99 (d, J = 6.6 Hz, 3H), 0.67-0.74 (m, 6H).[13]C NMR (DMSO-d_6, 150 MHz): δ 173.2, 172.6, 171.6, 171.3, 170.7, 170.3, 156.1, 153.1, 142.0, 138.1, 136.2, 133.8, 130.2, 129.6, 129.0, 128.4, 128.3, 128.2, 126.7, 126.5, 124.6, 123.6, 115.2, 81.8, 67.2, 67.0, 58.0, 57.7, 54.5, 54.1, 48.4, 40.8, 37.3, 36.9, 36.88, 36.80, 36.1, 31.2, 27.7, 24.1, 19.5, 18.4, 15.6, 11.6.MS (ESI) Calculated for $C_{48}H_{64}N_6O_{11}$ $[M+H]^+$: 901.5, found 901.0.

Acyclic-Gly-Ser-Phe-Asn-Tyr (S17):



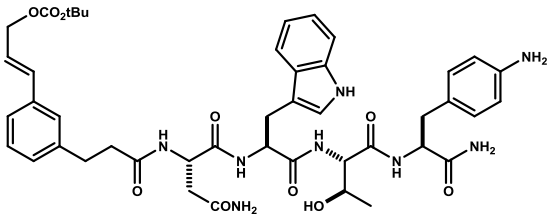
Following general procedure A, the corresponding compound was prepared from H-GSFNY-NH_2 (•TFA, 120 mg, 0.172 mmol), diisopropylethylamine (119 µL, 0.686 mmol) and reagent **1** (69 mg, 0.172 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (120 mg, 0.137mmol, 80%).[1]H NMR (DMSO-d_6, 600 MHz): δ 8.14 (d, J = 6.6 Hz, 1H), 8.08-8.12 (m, 1H), 8.02 (d, J = 7.1 Hz, 1H), 7.89-7.94 (m, 2H), 7.87 (d, J = 7.2 Hz, 1H), 7.40 (app. s, 1H) 7.34 (app s, 1H) 7.06-7.30 (m, 10H), 7.93-7.99 (m, 3H), 7.56-7.63 (m, 3H), 6.31 (dt, J = 15.7, 6.6 Hz, 1H), 4.64 (d, J = 4.9 Hz, 2H), 4.41-4.50 (m, 2H), 4.18-4.26 (2H), 4.67-4.73 (m, 2H), 3.43-3.50 (m, 2H), 2.97 (d, J = 12.7 Hz, 1H), 2.92 (d, J = 13.2 Hz, 1H), 2.72-2.80 (m, 3H), 2.39-2.57 (m, 3H), 2.35 (dd, J = 15.1, 5.1 Hz, 1H), 1.39 (s, 9H).[13]C NMR (DMSO-d_6, 100 MHz): δ 173.2, 172.2, 172.0, 171.2, 170.7, 170.3, 169.5, 153.1, 142.1, 138.0, 136.2, 133.8, 130.3, 129.5, 129.0, 128.3, 126.8, 124.5, 123.6, 115.2, 81.8, 67.2, 61.9, 55.4, 54.8, 54.4, 50.2, 42.4, 37.3.MS (ESI) Calculated for $C_{44}H_{55}N_7O_{12}$ $[M+H]^+$: 874.4, found 874.0

Acyclic-Ser-Phe-Phe(4-NH_2) (S18):



Following general procedure A, the corresponding compound was prepared from H-SFF(4-NH_2)-NH_2 (•2TFA, 170 mg, 0.265 mmol), diisopropylethylamine (185 µL, 1.06 mmol) and reagent **1** (107 mg, 0.265 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 30-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (115 mg, 0.164mmol, 62%).[1]H NMR (DMSO-d_6, 500 MHz): δ 8.08 (d, J = 7.7 Hz, 1H), 8.05 (d, J = 8.1 Hz, 1H), 7.97 (d, J = 7.7 Hz, 1H), 7.22-7.28 (m, 3H), 7.16-7.28 (m, 4H), 7.12-7.15 (m, 4H), 7.1 (d, J = 8.5 Hz, 2H), 7.07 (d, J = 7.6 Hz, 1H), 6.6 (d, J = 15.8 Hz, 1H), 6.31 (dt, J = 16.1, 6.2 Hz, 1H), 6.64 (dd, J = 6.1, 1.0 Hz, 2H), 4.32-4.38 (m, 2H), 4.28 (ddd, J = 6.8, 6.8, 6.8 Hz, 1H), 3.41-3.50 (m, 2H), 3 (dd, J = 13.7, 4.8 Hz, 1H), 2.92 (dd, J = 14.1, 4.5 Hz, 1H), 2.68-7.78 (m, 4H), 2.34-2.45 (m, 2H), 1.39 (s, 9H).[13]C NMR (DMSO-d_6, 100 MHz): δ 173.0, 172.6, 172.1, 171.5, 170.4, 157.2, 153.3, 142.1, 136.5, 136.3, 133.9, 130.7, 129.1, 128.4, 127.8, 126.9, 124.7, 124.1, 123.8, 121.3, 119.0, 118.6, 118.3, 115.9, 111.7, 110.6, 82.0, 67.4, 67.0, 58.5, 54.5, 54.0, 52.7, 40.9, 40.6. MS (ESI) Calculated for $C_{38}H_{47}N_5O_8$ $[M+H]^+$: 702.3, found 702.3.

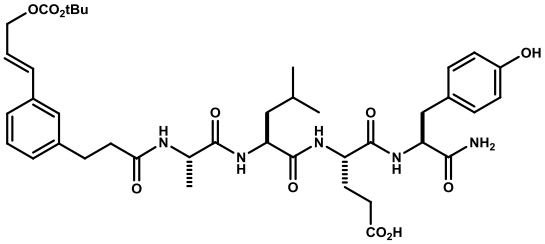
Acyclic-Asn-Trp-Thr-Phe(4-NH_2) (S19):



Following general procedure A, the corresponding compound was prepared from H-NWTF(4-NH_2)-NH_2 (•2TFA, 162 mg, 0.200mmol), diisopropylethylamine (140µL, 0.801mmol) and reagent **1** (81 mg, 0.200mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient

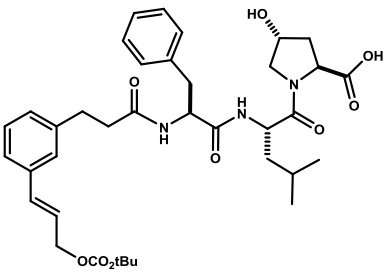
of 30-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (106 mg, 0.122mmol, 61%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.8 (d, J = 1.9 Hz, 1H), 8.09 (d, J = 7.8 Hz, 1H), 8.06 (d, J = 7.8 Hz, 1H), 7.9 (d, J = 8.3 Hz, 1H), 7.77 (d, J = 8.3 Hz, 1H), 7.52 (d, J = 7.8 Hz, 1H), 7.4 (br. s, J = Hz, 1H), 7.33 (br. s, J = Hz, 1H), 7.24-7.31 (m, 5H), 7.21 (dd, J = 7.8, 7.8 Hz, 1H), 7.11-7.19 (m, 4H), 7.08 (br. d, J = 7.3 Hz, 1H), 7.01 (dd, J = 7.1, 7.1 Hz, 1H), 6.97 (br. s, J = Hz, 1H), 6.91 (dd, J = 7.4, 7.4 Hz, 1H), 6.62 (d, J = 16 Hz, 1H), 6.32 (dt, J = 15.9, .62 Hz, 1H), 4.65 (dd, J = 6.3, 1.1 Hz, 2H), 4.56 (dq, J = 7.3, 7.3 Hz, 1H), 4.5 (ddd, J = 5.1, 5.1, 4.5 Hz, 1H), 4.41 (ddd, J = 8.5, 8.5, 5.2 Hz, 1H), 4.12 (dd, J = 8.0, 4.50 Hz, 1H), 3.92 (dddd, J = 12.5, 6.2, 6.2, 6.2 Hz, 1H), 3.15 (dd, J = 14.7, 4.0 Hz, 1H), 3.07 (dd, J = 13.9, 4.9 Hz, 1H), 2.98 (dd, J = 15.0, 8.7 Hz, 1H), 2.82 (dd, J = 13.8, 8.7 Hz, 1H), 2.66-2.76 (m, 2H), 2.44-2.54 (m, 1H), 2.27-2.39 (m, 3H), 1.41 (s, 9H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 173.1, 172.3, 172.0, 171.9, 171.7, 170.0, 153.3, 142.2, 137.5, 136.5, 136.3, 133.9, 131.8, 130.9, 129.1, 128.5, 127.8, 126.9, 124.7, 124.1, 123.8, 122.5, 121.3, 118.8, 118.7, 111.7, 110.3, 82.0, 67.4, 67.1, 59.1, 54.4, 54.1, 50.1, 37.5, 37.2, 31.4, 27.85, 27.78, 27.5, 19.7.MS (ESI) Calculated for $C_{45}H_{56}N_8O_{10}$ $[M+H]^+$: 869.4, found 869.3.

Acyclic-Ala-Leu-Glu-Tyr (15):



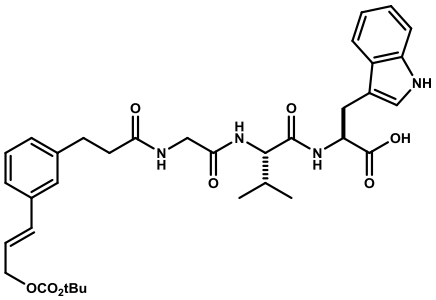
Following general procedure A, the corresponding compound was prepared from H-ALEY-NH_2 (•TFA, 183 mg, 0.301 mmol), diisopropylethylamine (210 µL, 1.205 mmol) and reagent **1** (122 mg, 0.301 mmol). The product was isolated by flash chromatography (SiO_2, gradient 0-10% $CH_3OH/CHCl_3$). The fractions collected were combined and concentrated under reduced pressure (160 mg, 0.205mmol, 68%).^{1}H NMR (DMSO-d_6, 400 MHz): δ 8.04 (d, J = 6.8 Hz, 1H), 7.96 (d, J = 7.2 Hz, 1H), 7.82 (d, J = 7.1 Hz, 1H), 7.72 (d, J = 8.1 Hz, 1H), 7.17-7.30 (m, 4H), 7.08 (d, J = 7.0 Hz, 1H), 7.02 (s, 1H), 6.96 (d, J = 7.7 Hz, 2H), 6.56-6.64 (m, 3H), 6.31 (dt, J = 15.8, 6.2 Hz, 1H), 4.64 (d, J = 5.3 Hz, 2H), 4.12-431 (m, 4H), 2.72-2.83 (m, 3H), 2.62-2.68 (m, 1H), 2.49-2.54 (m, 1H), 2.44-2.48 (m, 2H), 2.36-2.43 (m, 2H), 2.11-2.20 (m, 2H), 1.78-1.88 (m, 1H), 1.64-1.74 (m, 1H), 1.51-1.59 (m, 1H), 1.35-1.46 (m, 10H), 1.12 (d, J = 7.1 Hz, 3H), 0.84 (d, J = 6.4 Hz, 3H), 0.79 (d, J = 6.2 Hz, 3H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 174.3, 173.0, 172.8, 172.3, 171.7, 170.9, 156.1, 153.1, 142.1, 136.2, 133.8, 130.3, 128.9, 128.4, 128.0, 126.7, 124.5, 123.6, 115.2, 81.8, 67.2, 54.4, 52.3, 51.5, 48.5, 37.0, 36.9, 34.7, 31.2, 30.3, 27.7, 27.6, 24.5, 23.3, 21.9, 18.3.MS (ESI) Calculated for $C_{40}H_{55}N_5O_{11}$ $[M-OCO_2tBu]^+$: 666.4, found 664.0.

Acyclic-Phe-Leu-Hyp (S21):



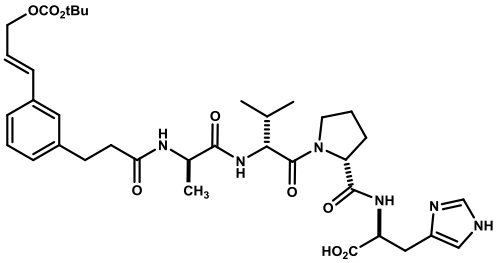
Following general procedure A, the corresponding compound was prepared from H-FLHyp-OH (•TFA, 215 mg, 0.425 mmol), diisopropylethylamine (296 µL, 1.70 mmol) and reagent **1** (172 mg, 0.425 mmol). The product was isolated by flash chromatography (SiO_2, gradient 0-10% $CH_3OH/CHCl_3$). The fractions collected were combined and concentrated under reduced pressure (165 mg, 0.242mmol, 57%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.10 (d, J = 8.3 Hz, 1H), 8.01 (d, J = 8.6 Hz, 1H), 7.12-7.26 (m, 8H), 7.00 (d, J = 7.4 Hz, 1H), 6.60 (d, J = 15.9 Hz, 1H), 6.31 (dt, J = 15.9, 6.3 Hz, 1H), 4.65 (dd, J = 6.1, 1.1 Hz, 2H), 4.50-4.55 (m, 2H), 4.31-4.37 (m, 1H), 3.59 (dd, J = 10.2, 4.6 Hz, 1H), 3.50-3.56 (m, 1H), 2.96 (dd, J = 13.9, 4.0 Hz, 1H), 2.60-2.72 (m, 3H), 2.29-2.35 (m, 2H), 2.07 (ddd, J = 11.9, 8.0, 2.5 Hz, 1H), 1.89 (ddd, J = 12.8, 8.0, 4.8 Hz, 1H), 1.62 (dddd, J = 13.4, 13.4, 6.9, 6.9 Hz, 1H), 1.41 (s, 9H), 0.86-0.89 (m, 6H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 171.7, 171.5, 170.8, 153.3, 142.2, 138.4, 136.3, 133.9, 129.6, 129.1, 128.4, 126.9, 126.6, 124.6, 123.7, 82.0, 69.4, 67.4, 58.2, 55.1, 54.0, 49.0, 40.7, 38.1, 37.6, 37.2, 31.4, 27.8, 24.4, 23.6, 22.1.MS (ESI) Calculated for $C_{37}H_{49}N_3O_9$ $[M-OCO_2tBu]^+$: 562.3, found 562.4.

Acyclic-Gly-Val-Trp (S22):



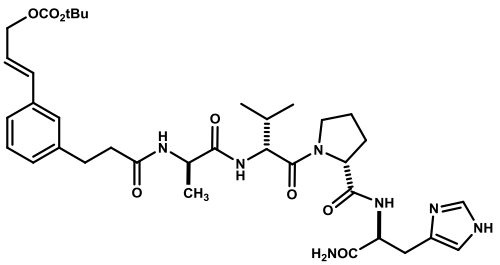
Following general procedure A, the corresponding compound was prepared from H-GVW-OH (•TFA, 57 mg, 0.120mmol), diisopropylethylamine (84µL, 0.481 mmol) and reagent **1** (48 mg, 0.120 mmol). The product was isolated by flash chromatography (SiO_2, gradient 0-10% $CH_3OH/CHCl_3$). The fractions collected were combined and concentrated under reduced pressure (48 mg, 0.073mmol, 61%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.80 (s, 1H), 8.23 (d, J = 7.7 Hz, 1H), 8.09 (d, J = 6.0 Hz, 1H), 7.72 (d, J = 9.2 Hz, 1H), 7.51 (d, J = 8.4 Hz, 1H), 7.28-7.32 (m, 2H), 7.20-7.27 (m, 2H), 7.09-7.15 (m, 2H), 7.03 (dd, J = 7.6, 7.6 Hz, 1H), 6.95 (dd, J = 7.1, 7.1 Hz, 1H), 6.62 (d, J = 16.0 Hz, 1H), 6.32 (dt,16.0, 6.3 Hz, 1H), 4.65 (dd, J = 6.1, 1.2 Hz, 2H), 4.43 (ddd, J = 7.9, 7.9, 5.5 Hz, 1H), 4.24 (dd, J = 9.0, 6.6 Hz, 1H), 3.66-3.76 (m, 2H), 3.15 (dd, J = 14.7, 5.3 Hz, 1H), 3.01 (dd, J = 14.7, 8.3 Hz, 1H), 2.71-2.82 (m, 2H), 2.40-2.46 (m, 2H), 1.94 (dddd, J = 13.4, 6.8, 6.8, 6.8 Hz, 1H), 1.41 (s, 9H), 0.82 (d, J = 6.7 Hz, 3H), 0.77 (d, J = 6.9 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.7, 172.2, 171.3, 169.2, 153.3, 142.2, 136.5, 136.3, 133.9, 129.1, 128.5, 127.7, 126.9, 124.7, 124.1, 123.8, 121.3, 118.8, 118.6, 111.8, 110.3, 82.0, 67.4, 57.5, 53.5, 42.4, 37.1, 31.4, 27.8, 27.5, 19.6, 18.3.MS (ESI) Calculated for $C_{35}H_{44}N_4O_8$ [M-OCO_2tBu]$^+$: 531.3, found 531.3.

Acyclic-Ala-Val-Pro-His-OH (S23):



Following general procedure A, the corresponding compound was prepared from H-A(D-)V(D-)PH-OH (•2TFA, 155 mg, 0.289 mmol), diisopropylethylamine (201 µL, 1.16 mmol) and reagent **1** (117 mg, 0.289 mmol). The product was isolated by flash chromatography (SiO_2, gradient 0-10% $CH_3OH/CHCl_3$). The fractions collected were combined and concentrated under reduced pressure (152 mg, 0.214mmol, 74%).^{1}H NMR (DMSO-d_6, 500 MHz): δ~3:1 mixture of rotamers; major: δ 8.97 (d, J = 1.2 Hz, 1H), 8.29 (d, J = 8.2 Hz, 1H), 8.08 (d, J = 8.7 Hz, 1H), 8 (d, J = 7.8 Hz, 1H), 7.36 (s, 1H), 7.29 (s, 1H), 7.17-7.26 (m, 2H), 7.09 (d, J = 7.8 Hz, 1H), 6.62 (d, J = 16 Hz, 1H), 6.32 (dt, J = 15.9, 6.2 Hz, 1H), 4.65 (d, J = 6.1 Hz, 2H), 4.52 (ddd, J = 9.6, 8.7, 4.6 Hz, 1H), 4.37 (dddd, J = 6.2, 6.2, 6.2, 6.2 Hz, 1H), 4.24-4.32 (m, 1H), 3.58-3.70 (m, 1H), 3.45-3.57 (m, 1H), 3.14 (dd, J = 15.0, 4.1 Hz, 1H), 2.95 (dd, J = 15.1, 9.9 Hz, 1H), 2.32-2.47 (m, 2H), 1.87-1.99 (m, 2H), 1.69-1.80 (m, 2H), 1.50-1.58 (m, 1H), 1.4 (s, 9H), 1.13 (d, J = 7 Hz, 3H), 0.85 (d, J = 6.8 Hz, 3H), 0.79 (d, J = 6.7 Hz, 3H). ^{13}C NMR (DMSO-d_6, 100 MHz): δ 172.7, 172.3, 171.8, 171.4, 170.2, 153.3, 142.2, 136.3, 134.2, 133.9, 129.9, 129.1, 128.5, 126.8, 124.7, 123.7, 118.5, 117.5, 116.1, 82.0, 67.4, 59.8, 55.9, 55.5, 51.3, 48.3, 37.0, 31.4, 30.6, 29.8, 27.8, 27.0, 24.7, 19.6, 19.5, 18.6.MS (ESI) Calculated for $C_{36}H_{50}N_6O_9$[M+H]$^+$: 711.4, found 711.4.

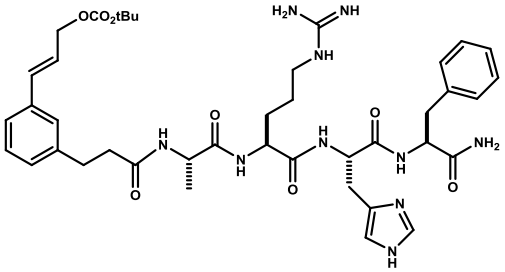
Acyclic-Ala-Val-Pro-His-NH_2 (S24):



Following general procedure A, the corresponding compound was prepared from H-A(D-)V(D-P)H-NH_2(•2TFA, 175 mg, 0.327 mmol), diisopropylethylamine (228 µL, 1.307 mmol) and reagent **1** (132 mg, 0.327 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 20-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (181 mg, 0.255mmol, 78%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.94 (d, J = 1.2 Hz, 1H), 8.53 (d, J = 8.7 Hz, 1H), 8.06 (d, J = 8 Hz, 1H), 7.91 (d, J = 8.2 Hz, 1H), 7.37 (s, 1H), 7.21-7.33 (m, 5H), 7.11 (d, J = 7.3 Hz, 1H), 6.64 (d, J = 15.9 Hz, 1H), 6.33 (dt, J = 15.9, 6.3 Hz, 1H), 4.67 (dd, J = 6.3, 1.1 Hz, 2H), 4.49 (ddd, J = 9.4, 9.4, 4.3 Hz, 1H), 4.33 (dq, J = 7.2, 7.2 Hz, 1H), 4.24 (dd, J = 8.3, 8.3 Hz, 1H), 4.2 (dd, J = 7.1, 7.1 Hz, 1H), 3.75-3.82 (m, 1H), 3.52 (ddd, J = 9.5, 7.4, 7.2 Hz, 1H), 3.22 (dd, J = 15.2, 4.3 Hz, 1H), 2.88 (dd, J = 15.2, 10.1 Hz, 1H), 2.79 (t, J = 7.7 Hz, 2H), 2.36-2.47 (m, 2H), 1.86-2.01 (m, 3H), 1.72-1.83 (m, 1H), 1.59 (ddd, J = 13.8, 13.8, 7.0 Hz, 1H), 1.42 (s, 9H), 1.12 (d, J = 6.7 Hz, 3H), 0.86 (d, J = 6.8 Hz, 3H), 0.85 (d, J = 6.6 Hz, 3H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 172.3, 172.1, 171.8, 171.2, 170.3, 152.8, 141.6, 135.8,

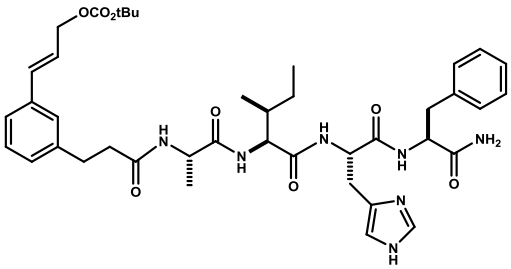
133.6, 133.4, 129.9, 128.6, 128.0, 126.3, 124.2, 123.2, 116.7, 81.5, 66.9, 59.8, 55.8, 51.3, 48.5, 47.7, 36.5, 30.8, 30.1, 28.9, 27.3, 26.3, 24.7, 18.8.MS (ESI) Calculated for $C_{36}H_{51}N_7O_8[M+H]^+$: 710.4, found 710.4.

Acyclic-Ala-Arg-His-Phe-NH$_2$ (S25):



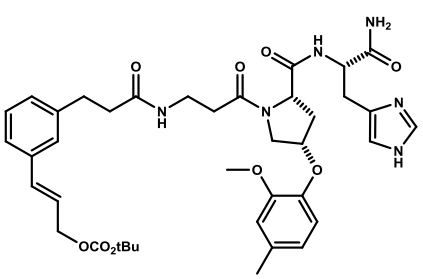
Following general procedure A, the corresponding compound was prepared from H-ARHF-NH_2 (•4TFA, 54 mg, 0.055 mmol), diisopropylethylamine (38 µL, 0.219 mmol) and reagent **1** (22 mg, 0.055 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 10-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (28 mg, 0.035mmol, 63%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.94 (d, J = 1.2 Hz, 1H), 8.03-8.11 (m, 4H), 7.63 (dd, J = 5.6 Hz, 1H), 7.59 (br. s, 1H), 7.20-7.29 (m, 9H), 7.15-7.19 (m, 1H), 7.09 (br. d, J = 7.4 Hz, 1H), 6.62 (br. d, J = 15.9 Hz, 1H), 6.32 (dt, J = 16.0, 6.3 Hz, 1H), 4.65 (dd, J = 6.1, 1.1 Hz, 2H), 4.53 (ddd, J = 7.8, 7.8, 5.9 Hz, 1H), 4.41 (ddd, J = 8.6, 8.2, 4.9 Hz, 1H), 4.23 (dq, J = 7.0, 7.0, Hz, 1H), 4.17 (ddd, J = 7.8, 7.8, 5.6 Hz, 1H), 2.98-3.07 (m, 4H), 2.97 (dd, J = 15.7, 8.0 Hz, 1H), 2.74-2.85 (m, 3H), 2.35-2.46 (m, 2H), 1.57-1.60 (m, 1H), 1.43-1.53 (m, 2H), 1.41 (s, 9H), 1.12 (d, J = 7.2 Hz, 3H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 173.4, 173.2, 172.0, 171.8, 169.9, 157.3, 153.3, 142.2, 138.0, 136.3, 134.2, 133.9, 129.6, 129.5, 129.1, 128.6, 128.5, 126.9, 126.8, 124.7, 123.8, 118.2, 117.4, 115.9, 82.0, 67.4, 54.4, 52.7, 51.9, 48.8, 40.9, 37.9, 37.0, 31.3, 29.1, 27.8, 27.5, 25.5, 18.4.MS (ESI) Calculated for $C_{41}H_{56}N_{10}O_8[M+H]^+$:816.4, found 817.2.

Acyclic-Ala-Ile-His-Phe-NH$_2$ (S26):



Following general procedure A, the corresponding compound was prepared from H-AIHF-NH_2 (•2TFA, 44 mg, 0.062 mmol), diisopropylethylamine (43 µL, 0.247 mmol) and reagent **1** (25 mg, 0.062 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 20-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (34 mg, 0.044mmol, 72%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.94 (d, J = 1.6 Hz, 1H), 8.16 (d, J = 8.1 Hz, 1H), 8.04 (d, J = 7.4 Hz, 1H), 7.99 (d, J = 7.8 Hz, 1H), 7.76 (d, J = 8.4 Hz, 1H), 7.51 (br. s, 1H), 7.27-7.29 (m, 2H), 7.18-7.26 (m, 6H), 7.14-7.18 (m, 2H), 7.1 (br. d, J = 7.4 Hz, 1H), 6.62 (d, J = 16 Hz, 1H), 6.32 (dt, J = 16.0, 6.2 Hz, 1H), 4.65 (dd, J = 6.3, 1.2 Hz, 2H), 4.58 (ddd, J = 7.9, 7.9, 6.1 Hz, 1H), 4.41 (ddd, J = 8.3, 8.3, 5.1 Hz, 1H), 4.29 (dq, J = 7.0, 7.0 Hz, 1H), 4.07 (t, J = 7.6 Hz, 1H), 2.95-3.00 (m, 2H), 2.91 (dd, J = 15.4, 801 Hz, 1H), 2.75-2.85 (m, 3H), 2.36-2.45 (m, 2H), 1.59-1.66 (m, 1H), 1.41 (s, 9H), 1.27-1.34 (m, 1H), 1.1 (d, J = 7 Hz, 3H), 0.94-1.04 (m, 1H), 0.74 (t, J = 7.4 Hz, 3H), 0.69 (d, J = 6.7 Hz, 3H). ^{13}C NMR (DMSO-d_6, 100 MHz): δ 173.2, 172.9, 171.8, 171.4, 170.0, 153.3, 142.2, 138.0, 136.3, 134.2, 133.9, 129.6, 129.6, 129.1, 128.5, 128.5, 126.9, 126.8, 124.7, 123.8, 117.3, 82.0, 67.4, 57.4, 54.3, 51.8, 48.5, 37.9, 37.1, 36.9, 31.4, 27.8, 27.5, 24.7, 18.3, 15.7, 11.5. MS (ESI) Calculated for $C_{41}H_{55}N_7O_8$ $[M+H]^+$:774.4, found 774.2.

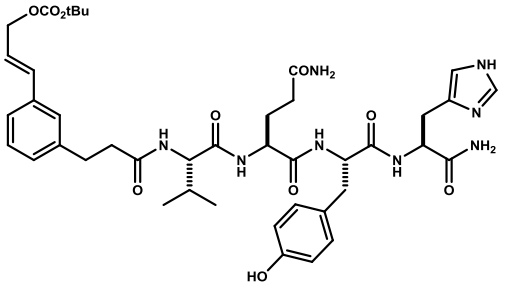
Acyclic-β-Ala-Pro[4-(2-methoxy-4-methylphenoxy)]-His (S27):



Following general procedure A, the corresponding compound was prepared from H-(β-)AP(4-OAr)H-NH_2 (•2TFA, 112 mg, 0.163 mmol), diisopropylethylamine (114 µL, 0.653 mmol) and reagent **1** (66 mg, 0.163 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 30-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (95 mg, 0.127mmol, 78%).^{1}H NMR (DMSO-d_6, 500 MHz): 5:1 mixture of rotamers. Major: δ 8.86 (d, J = 0.9 Hz, 1H), 8.14 (d, J = 8.7 Hz, 1H), 7.91 (d, J = 5.7 Hz, 1H), 7.33 (br. s, 1H), 7.25-7.31 (m, 2H), 7.17-7.24 (m, 3H), 7.06-7.10 (m, 2H), 6.75-6.82 (m, 2H), 6.64 (br. d, J = 8.3 Hz, 1H), 6.59 (d, J = 16 Hz, 1H), 6.3 (dt, J = 15.9, 6.3 Hz, 1H), 4.76-4.80 (m, 1H), 4.64 (d, J = 6.4 Hz, 2H), 4.51 (ddd, J = 9.2, 9.2, 4.6 Hz, 1H), 4.29 (dd, J = 9.9, 3.9 Hz, 1H), 3.71-3.73 (m, 1H), 3.7 (s, 3H), 3.19-3.29 (m, 3H), 2.93 (dd, J = 15.5, 9.7 Hz, 1H), 2.77 (t, J = 7.7 Hz, 2H), 2.26-2.53 (m, 6H), 2.23 (s, 3H), 1.99 (dt, J = 13.0, 3.1 Hz, 1H), 1.4

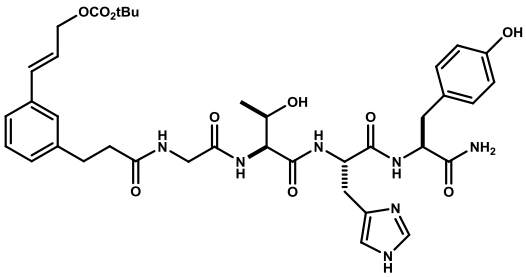
(s, 9H). ^{13}C NMR (DMSO-d_6, 100 MHz): δ 172.4, 172.0, 171.9, 171.8, 153.3, 150.6, 143.8, 142.1, 136.3, 133.9, 132.9, 130.5, 129.0, 128.6, 126.9, 124.7, 123.7, 121.3, 118.8, 116.9, 113.8, 82.0, 78.2, 67.4, 59.7, 55.9, 52.3, 51.7, 37.3, 35.1, 34.7, 31.4, 27.8, 26.5, 21.2. MS (ESI) Calculated for $C_{39}H_{50}N_6O_9$[M+H]$^+$:747.4, found 747.3.

Acyclic-Val-Gln-Tyr-His-NH$_2$ (18):



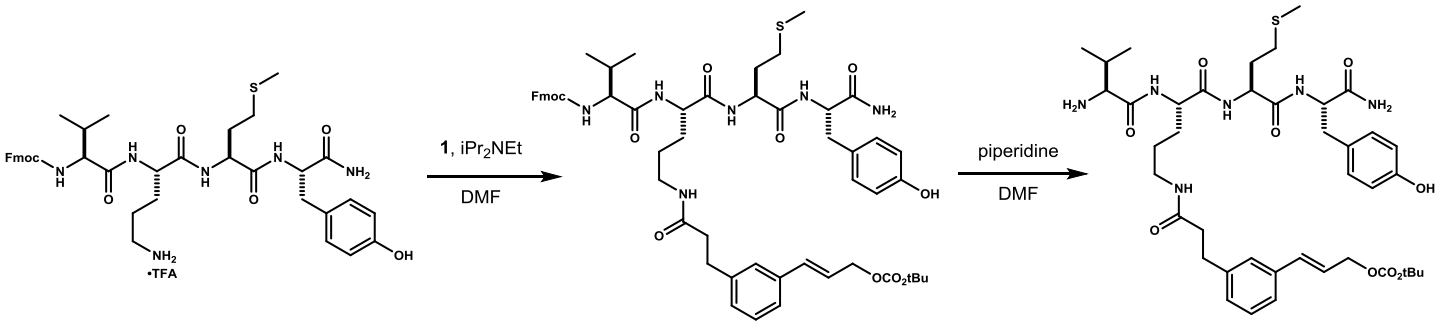
Following general procedure A, the corresponding compound was prepared from H-VQYH-NH_2 (•2TFA, 170 mg, 0.220mmol), diisopropylethylamine (153µL, 0.88 mmol) and reagent **1** (89 mg, 0.220mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 20-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (103 mg, 0.123mmol, 56%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.94 (d, J = 1.4 Hz, 1H), 8.19 (d, J = 8.3 Hz, 1H), 8.11 (d, J = 7.3 Hz, 1H), 7.91 (d, J = 7.8 Hz, 2H), 7.32 (br. s, J = Hz, 1H), 7.18-7.30 (m, 5H), 7.14 (br. s, J = Hz, 1H), 7.1 (br. d, J = 7.3 Hz, 1H), 6.96 (d, J = 8.4 Hz, 2H), 6.83 (br. s, J = Hz, 1H), 6.57-6.63 (m, 3H), 6.31 (dt, J = 16.0, 6.2 Hz, 1H), 4.65 (dd, J = 6.4, 1.2 Hz, 2H), 4.46 (ddd, J = 8.2, 8.2, 5.5 Hz, 1H), 4.32 (ddd, J = 8.1, 8.1, 5.0 Hz, 1H), 4.16 (ddd, J = 8.0, 8.0, 5.7 Hz, 1H), 4.04-4.09 (m, 1H), 3.1 (dd, J = 15.3, 5.2 Hz, 1H), 2.89 (dd, J = 15.4, 8.6 Hz, 1H), 2.74-2.86 (m, 3H), 2.68 (dd, J = 14.1, 9.1 Hz, 1H), 2.50-2.58 (m, 1H), 2.39-2.46 (m, 1H), 2.00-2.12 (m, 2H), 1.75-1.90 (m, 2H), 1.61-1.70 (m, 1H), 1.4 (s, 9H), 0.73 (d, J = 6.7 Hz, 6H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 174.6, 172.4, 172.0, 171.9, 171.8, 171.6, 156.3, 153.3, 142.1, 136.3, 134.1, 133.9, 130.4, 129.9, 129.1, 128.5, 127.9, 126.8, 124.7, 123.7, 117.3, 115.4, 82.0, 67.4, 58.6, 55.0, 52.7, 51.9, 37.0, 31.8, 31.5, 30.7, 28.1, 27.8, 27.3, 19.6, 18.7.MS (ESI) Calculated for $C_{42}H_{56}N_8O_{10}$[M+H]$^+$:833.4, found833.2.

Acyclic-Gly-Thr-His-Tyr-NH$_2$ (S29):



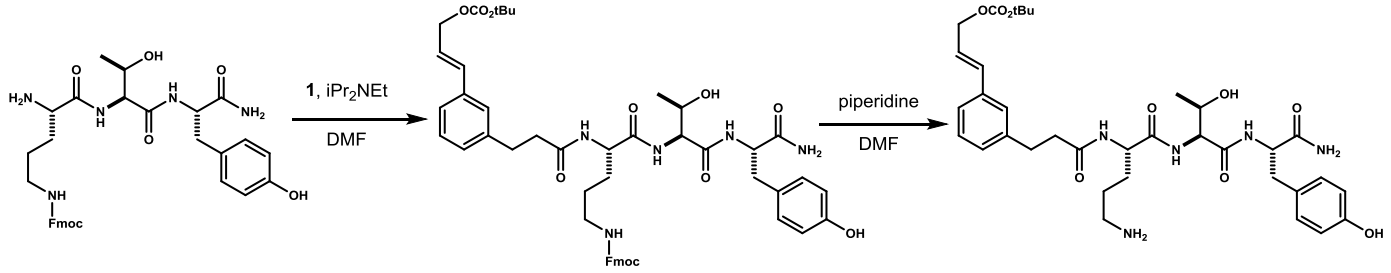
Following general procedure A, the corresponding compound was prepared from H-GTHY-NH_2 (•2TFA, 37 mg, 0.053 mmol), diisopropylethylamine (37 µL, 0.210 mmol) and reagent **1** (21 mg, 0.053 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 20-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (27 mg, 0.036mmol, 68%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.92 (d, J = 1.4 Hz, H), 8.2 (t, J = 5.9 Hz, H), 8.15 (d, J = 8 Hz, H), 7.95 (d, J = 7.8 Hz, H), 7.8 (d, J = 8 Hz, H), 7.44 (br. s, H), 7.24-7.30 (m, H), 7.22 (t, J = 7.5 Hz, H), 7.15 (br. s, H), 7.1 (br. d, J = 7.3 Hz, H), 7.01 (d, J = 8.5 Hz, H), 6.59-6.65 (m, H), 6.32 (dt, J = 16.1, 6.3 Hz, H), 4.65 (dd, J = 6.3m 1.1 Hz, H), 4.54 (ddd, J = 8.0, 8.0, 5.4 Hz, H), 4.3 (ddd, J = 8.3, 8.3, 5.2 Hz, H), 4.19 (dd, J = 8.0, 4.5 Hz, H), 3.94 (dddd, J = 6.5, 6.5, 6.5, 4.7 Hz, H), 3.71-3.81 (m, H), 3.06 (dd, J = 15.3, 5.1 Hz, H), 2.93 (dd, J = 15.3, 8.3 Hz, H), 2.87 (dd, J = 13.7, 4.9 Hz, H), 2.76-2.81 (m, H), 2.69 (dd, J = 14.0, 8.9 Hz, H), 2.40-2.47 (m, H), 1.41 (s, H), 0.99 (d, J = 6.4 Hz, H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 173.6, 172.5, 170.5, 170.0, 169.9, 156.3, 153.3, 142.2, 136.4, 134.2, 133.9, 130.5, 129.6, 129.1, 128.5, 128.1, 126.9, 124.7, 123.8, 117.5, 115.4, 82.0, 67.4, 66.9, 58.6, 55.0, 52.1, 42.6, 37.1, 31.8, 31.3, 27.8, 27.2, 20.0. MS (ESI) Calculated for $C_{38}H_{49}N_7O_{10}$ [M+H]$^+$: 764.4, found 764.1.

Acyclic-Val-Orn-Met-Tyr (S30):



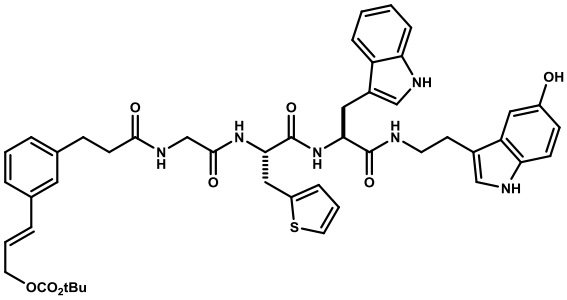
Following general procedure A, the corresponding compound was prepared from Fmoc-VOMY -NH_2 (•1TFA, 94 mg, 0.110mmol), diisopropylethylamine (76µL, 0.440mmol) and reagent **1** (22 mg, 0.110mmol). The reaction mixture was evaporated under reduced pressure. The resulting residue was treated with 20% piperidine/DMF (8 ml) for two hours and evaporated. The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 30-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (56 mg, 0.069 mmol, 62%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.49 (d, J = 7.7 Hz, 1H), 8.14 (d, J = 8.4 Hz, 1H), 8.03-8.09 (m, 3H), 7.84 (dd, J = 5.7, 5.7 Hz, 1H), 7.77 (d, J = 8.1 Hz, 1H), 7.4 (br. s, J = Hz, 1H), 7.19-7.29 (m, 3H), 7.09 (br. d, J = 7.4 Hz, 1H), 7.05 (br. s, J = Hz, 1H), 6.98 (d, J = 8.6 Hz, 2H), 6.58-6.64 (m, 3H), 6.31 (dt, J = 15.9, 6.3 Hz, 1H), 4.65 (dd, J = 6.3, 1.2 Hz, 2H), 4.25-4.37 (m, 3H), 3.56-3.62 (m, 1H), 2.96-3.09 (m, 2H), 2.84 (dd, J = 13.9, 5.2 Hz, 1H), 2.75-2.80 (m, 2H), 2.68 (dd, J = 14.1, 8.6 Hz, 1H), 2.30-2.42 (m, 4H), 1.96-2.06 (m, 4H), 1.80-1.89 (m, 1H), 1.67-1.76 (m, 1H), 1.55-1.64 (m, 1H), 1.31-1.51 (m, 12H), 0.9 (d, J = 2.4 Hz, 3H), 0.89 (d, J = 2.7 Hz, 3H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 173.3, 171.8, 171.5, 170.9, 168.2, 156.3, 153.3, 142.3, 136.3, 133.9, 130.6, 129.1, 128.5, 128.1, 126.9, 124.7, 123.8, 115.3, 82.0, 67.4, 57.6, 54.4, 52.8, 52.5, 38.5, 37.5, 37.3, 32.6, 31.5, 30.4, 29.8, 27.8, 18.7, 18.1, 15.0.MS (ESI) Calculated for $C_{41}H_{60}N_6O_9S$ $[M+H]^+$: 813.4, found 813.2.

Acyclic-Orn-Thr-Tyr (S35):



Following general procedure A, the corresponding compound was prepared from Orn(Fmoc)-Thr-Tyr-NH_2 (•1TFA, 109 mg, 0.15mmol), diisopropylethylamine (52µL, 0.30mmol) and reagent **1** (60 mg, 0.15mmol). The reaction mixture was evaporated under reduced pressure. The resulting residue was treated with DBU (1 equiv.) and Si-Thiol (Silicycle, 1.22 g/mmol) in DMF (1 ml) for one hour. The product was filtered and purifiedby preparative HPLC (Waters Xbridge C18 19x250 mm) using a gradient of 30-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and evaporated (116 mg, 0.145mmol, 97%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 9.20 (br s, 1H), 8.14 (d, J = 8.2 Hz, 1H, 7.86 (d, J = 8.3 Hz, 1H), 7.71 (d, J = 8.2 Hz, 1H), 7.65-7.70 (m, 3H), 7.42 (br s, 1H), 7.30 (br s, 1H), 7.27 (br d, J = 7.6 Hz, 1H), 7.24 (dd, J = 7.6, 7.3 Hz, 1H), 7.16 (br s, 1H), 7.11 (br d, J = 7.3 Hz, 1H), 7.01 (d, J = 8.4 Hz, 2H), 6.64 (d, J = 15.9 Hz, 1H), 6.63 (d, J = 8.4 Hz, 2H), 6.34 (dt, J = 15.9, 6.2 Hz, 1H), 4.67 (d, J = 6.1 Hz, 2H), 4.38-4.43 (m, 1H), 4.36 (ddd, J = 8.1, 8.0, 5.3 Hz, 1H), 4.18 (dd, J = 8.2, 4.2 Hz, 1H), 3.96-4.02 (m, 1H), 2.91 (dd, J = 14.0, 5.0 Hz, 1H), 2.80 (dd, J = 9.0, 6.8 Hz, 2H), 2.66-2.78 (m, 3H), 2.45 (dd, J = 8.3, 6.8 Hz, 2H), 1.63-1.72 (m, 1H), 1.46-1.54 (m, 3H), 1.43 (s, 9H), 0.97 (d, J = 6.3 Hz, 3H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 173.1, 171.6, 169.4, 155.8, 152.8, 141.7, 135.9, 133.4, 130.1, 128.7, 128.0, 127.7, 126.4, 124.3, 123.4, 114.9, 81.6, 66.9, 66.4, 58.1, 54.1, 51.6, 38.5, 36.7, 31.0, 28.8, 27.4, 23.5, 19.4.MS (ESI) Calculated for $C_{35}H_{45}N_5O_9$ $[M+H]^+$: 684.4, found 684.2.

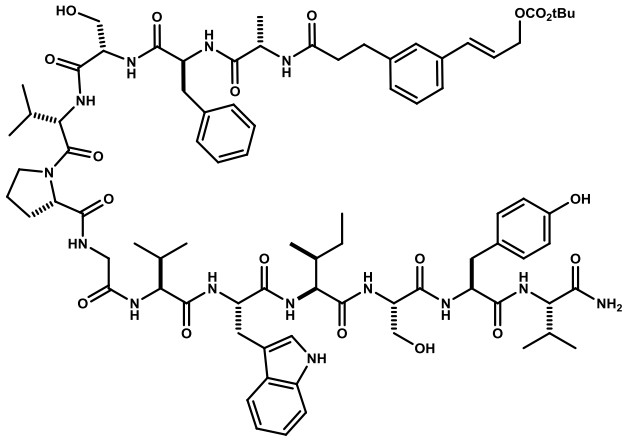
Acyclic-Gly-Thi-Trp-5HT (S31):



Following general procedure A, the corresponding compound was prepared from H-GThiW-5HT-NH_2 (•TFA, 52 mg, 0.091 mmol), diisopropylethylamine (63 µL, 0.363 mmol) and reagent **1** (37 mg, 0.091 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (45 mg, 0.052mmol, 57%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 10.75 (s, 1H), 10.42 (s, 1H), 8.08-8.14 (m, 2H), 7.85 (t, J = 5.6 Hz, 1H), 7.55 (d, J = 7.9 Hz, 1H), 7.30 (d, J - 8.1 Hz, 1H), 7.22-7.27 (m, 3H), 7.20 (t, J = 7.5 Hz, 1H), 7.06-7.11 (m, 3H), 7.02 (dd,J = 7.4, 7.4 Hz, 1H), 6.96-6.98 (m, 1H), 6.94 (dd, 7.4, 7.4 Hz, 1H), 6.85 (dd, J = 4.7, 4.0 Hz, 1H), 6.80-6.83

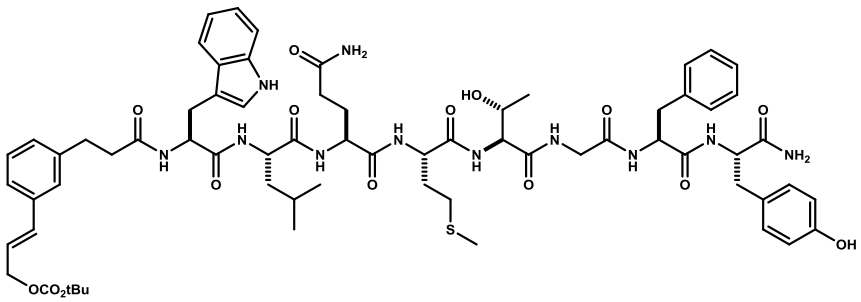
(m, 2H), 6.59 (d, J = 16.2 Hz, 1H), 6.57 9 (dd, J = 8.6, 2.2 Hz, 1H), 6.29 (dt, J = 16.0, 6.3 Hz, 1H), 4.63 (d, J = 6.4 Hz, 2H), 4.44-4.52 (m, 2H), 3.74 (dd, J = 16.5, 5.7 Hz, 1H), 3.62 (dd, J = 16.3, 5.6 Hz, 1H), 3.21-3.27 (m, 2H), 3.18 (dd, J = 15.1, 4.3 Hz, 1H), 3.11 (dd, J = 14.5, 5.4 Hz, 1H), 2.96-3.01 (m, 2H), 2.78 (t, J = 7.7 Hz, 1H), 2.62 (t, 7.7 Hz, 1H), 2.40-2.45 (m, 2H), 1.40 (s, 9H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 172.3, 171.2, 170.4, 169.5, 153.1, 150.5, 142.1, 139.7, 136.4, 136.2, 133.7, 131.1, 129.0, 128.3, 128.1, 127.7, 127.0, 126.8, 126.6, 124.8, 124.5, 123.9, 123.7, 123.4, 121.2, 118.8, 118.6, 112.0, 111.60, 111.57, 111.0, 110.3, 102.5, 81.8, 67.2, 54.2, 54.1, 42.4, 37.0, 31.9. MS (ESI) Calculated for $C_{47}H_{52}N_6O_8S$ $[M+H]^+$: 861.4, found 861.3.

Acyclic-Ala-Phe-Ser-Val-Pro-Gly-Val-Trp-Ile-Ser-Tyr-Val (S32):



Following general procedure A, the corresponding compound was prepared from H-AFSVPGVWISYV-NH_2 (•TFA, 75 mg, 0.052 mmol), diisopropylethylamine (36 µL, 0.209 mmol) and reagent **1** (21 mg, 0.052 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 30-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (61 mg, 0.038mmol, 72%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 10.68 (s, 1H), 8.18 (d, J = 8 Hz, 1H), 8.09 (dd, J = 5.6 Hz, 1H), 8.02 (d, J = 7.6 Hz, 1H), 7.91-7.98 (m, 3H), 7.89 (d, J = 8.1 Hz, 1H), 7.84 (d, J = 8.7 Hz, 1H), 7.79 (d, J = 8.7 Hz, 1H), 7.71 (d, J = 9.1 Hz, 1H), 7.56 (d, J = 8.9 Hz, 1H), 7.53 (d, J = 8.2 Hz, 1H), 7.16-7.28 (m, 9H), 7.10-7.15 (m, 1H), 7.04-7.09 (m, 3H), 7 (t, J = 7.4 Hz, 1H), 6.96 (d, J = 8.3 Hz, 2H), 6.92 (t, J = 7.5 Hz, 1H), 6.6 (d, J = 16 Hz, 1H), 6.56 (d, J = 8.1 Hz, 2H), 6.3 (dt, J = 16.0, 6.3 Hz, 1H), 4.63 (d, J = 6.1 Hz, 2H), 4.55 (ddd, J = 8.4, 8.4, 8.4 Hz, 1H), 4.63 (ddd, J = 8.7, 8.7, 4.2 Hz, 1H), 6.06 (ddd, J = 8.0, 8.0, 5.0 Hz, 1H), 4.12-4.36 (m, 4H), 4.14-4.23 (m, 3H), 4.06 (dd, J = 8.8, 6.7 Hz, 1H), 3.71 (dd, J = 16.5, 5.8 Hz, 1H), 3.61-3.66 (m, 1H), 3.44-3.60 (m, 5H), 3.06 (dd, J = 14.3, 3.9 Hz, 1H), 3.01 (dd, J = 13.9, 3.7 Hz, 1H), 2.84-2.93 (m, 2H), 2.67-2.79 (m, 4H), 1.84-2.03 (m, 5H), 1.73-1.81 (m, 2H), 1.61-1.69 (m, 1H), 1.39 (s, 9H), 1.32-1.38 (m, 1H), 1.04 (d, J = 7 Hz, 3H), 0.96-1.03 (m, 1H), 0.87 (d, J = 6.4 Hz, 3H), 0.70-0.83 (m, 21H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.1, 172.4, 172.3, 171.64, 171.56, 171.1, 171.03, 171.00, 170.9, 170.2, 170.05, 170.01, 168.8, 156.1, 153.1, 142.0, 138.0, 136.3, 136.2, 133.8, 130.3, 129.6, 128.9, 128.34, 128.26, 127.9, 127.6, 126.7, 126.5, 124.6, 123.9, 123.7, 121.1, 118.7, 118.5, 115.2, 111.5, 110.3, 81.8, 67.2, 62.1, 62.0, 59.89, 57.90, 57.7, 57.1, 56.0, 55.3, 55.2, 54.7, 53.9, 53.7, 48.6, 47.4, 42.4, 37.6, 37.2, 36.9, 36.6, 31.1, 31.0, 30.7, 30.4, 29.5, 27.7, 24.7, 24.5, 19.6, 19.6, 19.5, 18.4, 18.2.MS (ESI) Calculated for $C_{83}H_{114}N_{14}O_{19}[M+2H]^{2+}$: 806.4, found 806.2.

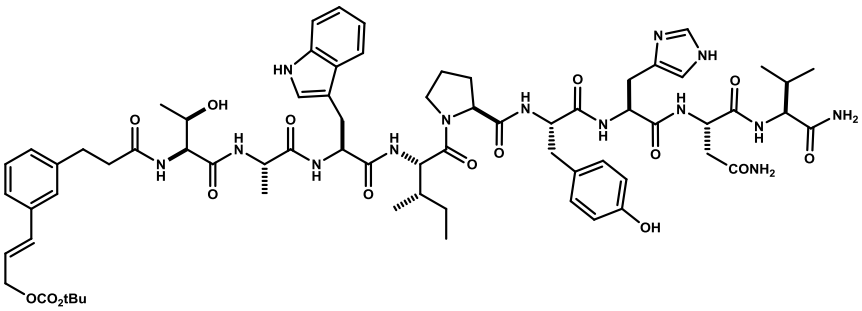
Acyclic-Trp-Leu-Gln-Met-Thr-Gly-Phe-Tyr (S33):



Following general procedure A, the corresponding compound was prepared from H-WLQMTGFY-NH_2 (•TFA, 83 mg, 0.072 mmol), diisopropylethylamine (50 µL, 0.287 mmol) and reagent **1** (29 mg, 0.072mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 40-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (61 mg, 0.046mmol, 64%).^{1}H NMR (DMSO-d_6, 500 MHz): δ10.74 (d, J = 1.6 Hz, 1H), 7.97-8.10 (m, 7H), 7.73 (d, J = 8.1 Hz, 1H), 7.59 (d, J = 7.8 Hz, 1H), 7.29 (d, J = 8.2 Hz, 1H), 7.11-7.26 (m, 10H), 7.08 (d, J = 2.6 Hz, 1H), 6.97-7.05 (m, 5H), 6.95 (t, J = 7.9 Hz, 1H), 6.78 (br. s, J = Hz, 1H), 6.62 (d, J = 8.4 Hz, 2H), 6.58 (d, J = 16.1 Hz, 1H), 6.3 (dt, J = 16.1, 6.2 Hz, 1H), 4.64 (dd, J = 6.3, 1.1 Hz, 2H), 4.55 (ddd, J = 8.6, 8.6, 4.6 Hz, 1H), 4.46 (ddd, J = 8.7, 8.7, 4.7 Hz, 1H), 4.41 (ddd, J = 8.4, 8.4, 4.8 Hz, 1H), 4.27-4.33 (m, 2H), 4.23 (dq, J = 7.7, 7.7 Hz, 1H), 4.18 (dd, J = 8.0, 3.9 Hz, 1H), 3.91-3.97 (m, 1H), 3.68 (dd, J = 17.0, 5.4 Hz, 1H), 3.62 (dd, J = 16.7, 5.2 Hz, 1H), 3.08 (dd, J = 14.6, 4.2 Hz, 1H), 2.93 (dd, J = 13.7, 4.4 Hz, 1H), 2.83-2.91 (m, 2H), 2.60-2.72 (m, 4H), 2.30-2.46 (m, 4H), 2.06-

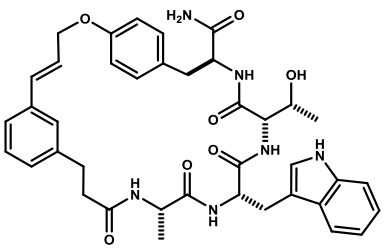
2.13 (m, 2H), 1.98 (s, 3H), 1.81-1.96 (m, 2H), 1.70-1.81 (m, 2H), 1.49-1.61 (m, 1H), 1.36-1.46 (m, 11H), 0.85 (d, J = 6.4 Hz, 3H), 0.81 (d, J = 6.6 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ174.3, 173.3, 172.4, 172.1, 171.8, 171.7, 171.6, 171.0, 170.7, 169.0, 156.2, 153.3, 142.2, 138.1, 136.5, 136.3, 133.9, 130.6, 129.7, 129.1, 128.5, 128.4, 128.3, 127.9, 126.9, 126.7, 124.6, 124.1, 123.7, 121.2, 119.0, 118.6, 115.3, 111.7, 110.6, 82.0, 67.4, 67.1, 58.7, 54.7, 54.5, 53.7, 52.6, 52.3, 51.5, 42.4, 41.3, 38.0, 37.3, 37.3, 32.2, 31.9, 31.4, 30.0, 28.2, 28.1, 27.8, 24.6, 23.5, 22.2, 20.0, 15.1.MS (ESI) Calculated for $C_{68}H_{89}N_{11}O_{15}S$ $[M+H]^+$: 1332.6, found1332.2.

Acyclic-Thr-Ala-Trp-Ile-Pro-Tyr-His-Asn-Val (S34):



Following general procedure A, the corresponding compound was prepared from H-TAWIPYHNV-NH_2 (•2TFA, 196 mg, 0.148 mmol), diisopropylethylamine (103 µL, 0.591 mmol) and reagent **1** (60 mg, 0.148 mmol). The product was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 30-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (131 mg, 0.095 mmol, 64%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.76 (s, 1H), 8.92 (s, 1H), 8.31 (d, J = 7.1 Hz, 1H), 8.18 (d, J = 7.7 Hz, 1H), 7.89-7.98 (m, 2H), 7.84 (d, J = 7.2 Hz, 1H), 7.77-7.81 (m, 2H), 7.47 (d, J = 7.9 Hz, 1H), 7.44 (s, 1H), 7.38 (s, 1H), 7.33 (s, 1H), 7.25-7.29 (m, 2H), 7.16-7.24 (m, 2H), 7.04-7.09 (m, 3H), 6.90-7.03 (m, 4H), 6.91 (d, J = 7.3 Hz, 1H), 6.56-6.62 (m, 3H), 6.29 (dt, J = 15.8, 6.2 Hz, 1H), 4.63 (dd, J = 6.2, 0.9 Hz, 2H), 4.49-4.61 (m, 3H), 4.18-4.32 (m, 5H), 4.04-4.08 (m, 1H), 3.9 (ddd, J = 10.0, 10.0, 5.7 Hz, 1H), 3.50-3.56 (m, 1H), 3.41-3.47 (m, 1H), 3.00-3.10 (m, 2H), 2.86-2.97 (m, 2H), 2.75-2.82 (m, 2H), 2.41-2.57 (m, 5H), 2 (dq, J = 13.5, 6.8 Hz, 1H), 1.82-1.91 (m, 1H), 1.59-1.75 (m, 4H), 1.41-1.48 (m, 1H), 1.39 (s, 9H), 0.92 (d, J = 6.2 Hz, 3H), 0.71-0.81 (m, 12H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.0, 172.2, 172.0, 171.9, 171.5, 171.3, 171.2, 170.3, 170.2, 169.8, 161.8, 156.1, 153.1, 142.0, 136.3, 136.1, 134.0, 133.8, 130.3, 129.3, 128.9, 128.4, 128.0, 127.7, 126.7, 124.5, 123.9, 123.6, 121.1, 118.7, 118.5, 117.3, 116.7, 115.2, 114.8, 112.9, 111.5, 110.0, 81.8, 67.2, 66.9, 59.6, 58.3, 57.9, 54.9, 53.5, 51.6, 50.3, 48.6, 37.1, 36.9, 36.4, 31.3, 30.4, 29.2, 27.7, 24.5, 24.4, 24.3, 19.8, 19.6, 18.4, 17.8, 15.3, 11.1.MS (ESI) Calculated for $C_{70}H_{94}N_{14}O_{16}$ $[M+H]^+$: 1387.7, found 1387.4.

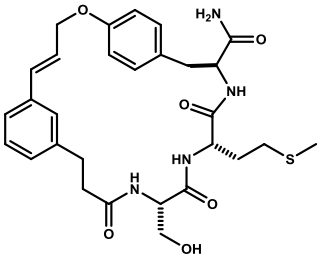
Data for macrocyclic compounds:



Cyclic-Ala-Trp-Thr-Tyr (4):

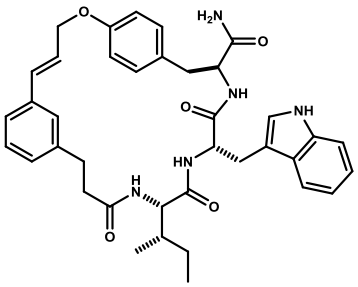
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (8 mg, 0.011 mmol, 78%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.81 (d, J = 1.8 Hz, 1H), 8.1 (d, J = 7.5 Hz, 1H), 8.01 (d, J = 7.4 Hz, 1H), 7.68 (d, J = 8.1 Hz, 1H), 7.51 (d, J = 8.1 Hz, 1H), 7.25-7.36 (m, 3H), 7.06-7.22 (m, 5H), 6.89-7.05 (m, 3H), 6.79 (d, J = 8.7 Hz, 2H), 6.61 (d, J = 8.3 Hz, 2H), 6.53 (d, J = 15.9 Hz, 1H), 2.28 (dt, J = 16.0, 5.7 Hz, 1H), 4.15 (d, J = 5.4 Hz, 2H), 4.31-4.42 (m, 3H), 4.07-4.14 (m, 1H), 3.91-3.99 (m, 1H), 2.86-3.16 (m, 4H), 2.65-2.80 (m, 3H), 2.23-3.38 (m, 1H), 0.94 (d, J = 7.5 Hz, 3H), 0.86 (d, J = 6.4 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.6, 173.4, 172.9, 172.1, 169.9, 156.2, 141.8, 136.5, 132.7, 130.4, 130.3, 128.9, 128.5, 128.3, 127.8, 126.0, 125.7, 124.8, 124.2, 121.3, 118.7, 115.4, 115.1, 111.8, 110.2, 68.2, 67.0, 66.6, 58.4, 54.6, 49.0, 36.1, 30.7, 27.5, 19.5, 18.1. MS (ESI) Calculated for $C_{39}H_{44}N_6O_7$ $[M+H]^+$: 709.3, found 709.0.

Cyclic-Ser-Met-Tyr (5):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (15 mg, 0.026mmol, 80%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 7.96 (d, J = 8.2 Hz, 1H), 7.92 (d, J = 7.9 Hz, 1H), 7.75 (d, J = 7.9 Hz, 1H), 7.37 (s, 1H), 7.24 (s, 1H), 7.13-7.21 (m, 2H), 7.04-7.11 (m, 3H), 7.00 (d, J = 8.1 Hz, 1H), 6.81 (d, J = 8.46 Hz, 2H), 6.60 (d, J = 15.9, 1H), 6.36 (dt, J = 16.1, 5.7 Hz, 1H), 4.77 (d, J = 5.5 Hz, 2H), 4.21-4.31 (m, 2H), 4.14 (ddd, J = 6.9, 6.9, 6.9 Hz, 1H), 3.12 (dd, J = 10.6, 5.3 Hz, 1H), 3.06 (d, J = 10.9, 6..9 Hz, 1H), 2.89 (app d, J = 14.2 Hz, 1H), 2.68-2.84 (m, 3H), 2.55-2.64 (m, 1H), 2.27-2.39 (m, 3H), 1.96 (s, 1H), 1.74-1.82 (m, 1H), 1.58-1.66 (m, 1H).^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.3,171.8,171.2,170.2,156.8,141.4,136.2,132.8,130.3,130.0,128.8,128.6,126.0,125.6,124.5,115.0,68.0,62.2,54.7,54.1,52.1,36.4,35.3,31.9,30.7,29.7,14.9.MS (ESI) Calculated for $C_{29}H_{36}N_4O_6S$ $[M+H]^+$: 569.2, found 569.2.

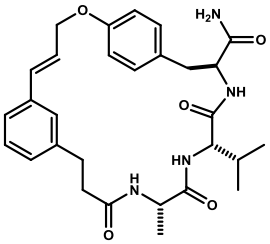
Cyclic-Ile-Trp-Tyr (6):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (12 mg, 0.019 mmol, 72%).

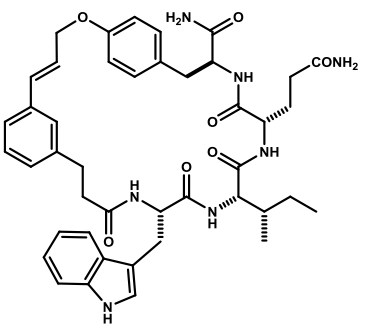
^{1}H NMR (DMSO-d_6, 500 MHz): 10.8 (d, J = 1.8 Hz, 1H), 7.81 (d, J = 8.3 Hz, 1H), 7.59 (d, J = 7.8 Hz, 1H), 7.52 (br. s, J = Hz, 1H), 7.36 (d, J = 8.5 Hz, 1H), 7.31 (br. d, J = 7.9 Hz, 1H), 7.19 (br. s, J = Hz, 1H), 7.09-7.06 (m, 3H), 6.92-7.07 (m, 6H), 6.8 (d, J = 8.7 Hz, 2H), 6.68 (d, J = 16 Hz, 1H), 6.51 (dt, J = 15.8, 6.4 Hz, 1H), 4.66-4.77 (m, 2H), 4.54 (ddd, J = 8.3, 8.3, 5.6 Hz, 1H), 4.24 (ddd, J = 8.2, 8.2, 4.8 Hz, 1H), 3.84 (app. dd, J = 8.0, 6.9 Hz, 1H), 2.95 (ddd, J = 15.0, 5.4 Hz, 1H), 2.68-2.90 (m, 6H), 2.27-2.35 (m, 1H), 1.11-1.19 (m, 1H), 0.57-0.71 (m, 2H), 0.26-0.31 (m, 3H), 0.08 (d, J = 6.7 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.9, 171.6, 171.4, 170.9, 157.2, 140.9, 136.7, 136.5, 134.3, 130.6, 129.9, 129.1, 128.7, 127.7, 125.8, 125.6, 125.3, 124.2, 121.3, 119.0, 118.6, 114.7, 111.8, 110.4, 68.5, 56.8, 54.6, 53.0, 38.2, 36.7, 34.9, 30.9, 27.1, 23.8, 15.1, 11.3.MS (ESI) Calculated for $C_{38}H_{43}N_5O_5$ $[M+H]^+$: 650.3, found 650.0

Cyclic-Ala-Val-Tyr (7):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (10 mg, 0.020mmol, 78%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 7.82 (d, J = 8.9 Hz, 1H), 7.69 (d, J = 8.8 Hz, 1H), 7.52 (d, J = 7.1 Hz, 1H), 7.22 (s, 1H), 7.15-7.20 (m, 3H), 7.08 (s, 1H), 7.00-7.05 (m, 3H), 6.78 (d, J = 8.5 Hz, 2H), 6.64 (d, J = 16.0 Hz, 1H), 6.31 (dt, J = 15.8, 6.0 Hz, 1H), 4.74 (d, J = 5.8 Hz, 2H), 5.82 (ddd, J = 9.8, 9.8, 2.9 Hz, 1H), 4.74 (dq, J = 7.0, 7.0 Hz, 1H), 3.93 (dd, J = 8.6, 8.6 Hz, 1H), 2.81-2.89 (m, 2H), 2.71-2.79 (m, 2H), 2.53-2.60 (m, 1H), 2.21-2.27 (m, 1H), 1.81 (dddd, J = 13.5, 6.5, 6.5, 6.5 Hz, 1H), 1.38 (d, J = 6.8 Hz, 3H), 0.63 (d, J = 6.6 Hz, 6H).^{13}C NMR (DMSO-d6, 150 MHz): δ 173.5, 172.2, 171.3, 170.9, 157.0, 141.4, 136.0, 133.2, 130.0, 129.7, 128.8, 128.8, 125.9, 125.5, 125.0, 114.9, 68.2, 58.4, 53.3, 47.9, 36.4, 35.8, 31.1, 29.9, 19.5, 19.4, 18.4.MS (ESI) Calculated for $C_{29}H_{36}N_4O_5[M+H]^+$: 521.3, found 521.2.

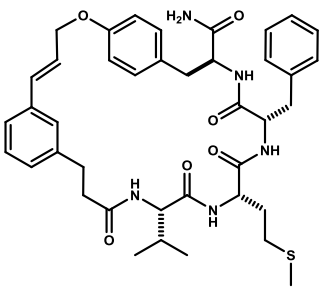
Cyclic-Trp-Ile-Gln-Tyr (8):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (11 mg, 0.014 mmol, 81%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.76 (d, J = 1.9 Hz, 1H), 8.22 (d, J = 7.8 Hz, 1H), 7.83 (d, J = 7.5 Hz, 1H), 7.79 (d, J = 7.8 Hz, 1H), 7.53 (d, J = 7.8 Hz, 1H), 7.37 (br. s, 1H), 7.27-7.34 (m, 2H), 7.16-7.25 (m, 3H), 7.08-

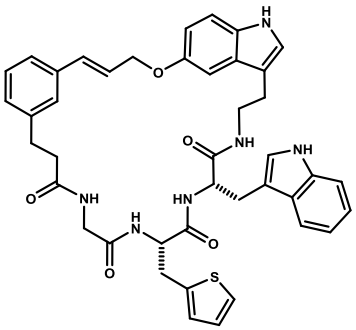
7.15 (m, 3H), 6.99-7.08 (m, 4H), 6.95 (t, J = 7.4 Hz, 1H), 6.81 (d, J = 8.7 Hz, 2H), 6.73 (br. s, 1H), 6.61 (d, J = 16 Hz, 1H), 6.35 (dt, J = 15.9, 5.6 Hz, 1H), 4.69-4.79 (m, 2H), 4.38 (ddd, J = 9.6, 7.8, 4.4 Hz, 1H), 4.32 (ddd, J = 10.8, 7.7, 3.1 Hz, 1H), 4.2 (dd, J = 8.0, 5.7 Hz, 1H), 4.12 (ddd, J = 7.9, 7.9, 5.1 Hz, 1H), 3.14 (dd, J = 15.0, 4.3 Hz, 1H), 2.85-2.96 (m, 2H), 2.74-2.83 (m, 1H), 2.63-2.74 (m, 2H), 2.30-2.41 (m, 2H), 1.99-2.15 (m, 1H), 1.78-1.93 (m, 1H), 1.57-1.73 (m, 2H), 1.17-1.31 (m, 1H), 0.89-1.01 (m, 1H), 0.64-0.74 (m, 6H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 174.3, 174.0, 172.5, 171.83, 171.81, 170.8, 157.0, 142.2, 136.6, 136.5, 132.7, 130.4, 130.2, 129.0, 128.1, 127.7, 126.6, 125.6, 124.7, 123.7, 121.4, 118.8, 118.7, 115.0, 111.8, 110.9, 68.1, 56.6, 54.8, 54.6, 52.6, 37.8, 36.9, 36.7, 32.0, 30.9, 28.0, 27.5, 24.5, 15.6, 11.8. MS (ESI) Calculated for $C_{43}H_{51}N_7O_7$ $[M+H]^+$: 778.4, found 778.0.

Cyclic-Val-Met-Phe-Tyr (9):



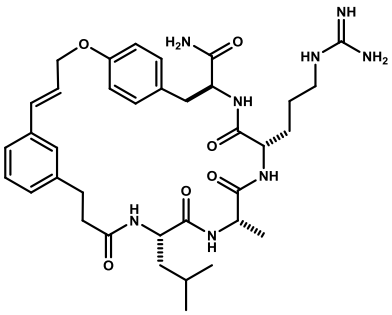
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (9 mg, 0.012mmol, 73%).^{1}H NMR (DMSO-d_6, 600 MHz): δ8.24 (d, J = 8.6 Hz, 1H), 8.04 (d, J = 7.0 Hz, 1H), 7.82 (d, J = 8.9 Hz, 1H), 7.39-7.43 (m, 2H), 7.09-7.22 (m, 11H), 7.01 (d, J = 6.7 Hz, 1H), 6.82 (d, J = 8.7 Hz, 2H), 6.72 (d, J = 15.7 Hz, 1H), 6.53 (ddd, J = 16.0, 6.6, 4.9 Hz, 1H), 4.74-4.85 (m, 2H), 4.32-4.41 (m, 2H), 4.09-4.16 (m, 2H), 3.13 (dd, J = 13.8, 4.8 Hz, 1H), 2.94 (dd, J = 14.0, 2.5 Hz, 1H), 2.77-2.85 (m, 4H), 2.65 (dd, J = 13.9, 11.6 Hz, 1H), 2.26-2.40 (m, 3H), 1.97 (s, 3H), 1.66-2.04 (m, 3H), 0.254 (d, J = 6.9 Hz, 3H), 0.17 (d, J = 6.7 Hz, 3H).^{13}C NMR (DMSO-d_6, 100 MHz): δ 173.5, 171.5, 171.4, 170.8, 170.1, 156.7, 140.8, 137.0, 136.2, 132.3, 130.0, 129.8, 129.5, 128.5, 128.2, 127.8, 126.2, 125.7, 124.9, 124.6, 114.2, 67.8, 56.7, 54.6, 53.0, 52.4, 48.6, 36.9, 36.8, 34.8, 31.1, 30.4, 29.3, 18.7, 16.2, 14.4.MS (ESI) Calculated for $C_{40}H_{49}N_5O_6S$ $[M+H]^+$: 728.3, found 728.2.

Cyclic-Gly-Thi-Trp-5HT (10):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (16 mg, 0.021 mmol, 69%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.79 (s, 1H), 10.60 (s, 1H), 8.57 (d, J = 7.6 Hz, 1H), 8.47 (t, J = 5.5 Hz, 1H), 7.87 (d, J = 8.5 Hz, 1H), 7.81 (t, J = 5.9 Hz, 1H), 7.53-7.56 (m, 2H), 7.48 (d, J = 7.9 Hz, 1H), 7.46 (d, J = 7.9 Hz, 1H), 7.32-7.37 (m, 2H), 7.30 (d, J = 7.7 Hz, 1H), 7.23-7.27 (m, 2H), 7.22 (d, J = 7.7 Hz, 1H), 7.19 (d, J = 2.0 Hz, 1H), 7.15-7.18 (m, 2H), 7.10 (d, J = 1.9 Hz, 1H), 7.03 (d, J - 1.9 Hz, 1H), 7.03 (d, J = 7.9 Hz, 2H), 6.96 (dd, J = 7.4, 7.4 Hz, 1H), 6.84 (dd, J = 5.0, 3.3 Hz, 1H), 6.78-6.80 (m, 1H), 6.76 (d, J =16.1 Hz, 1H), 6.71 (dd, J = 8.7, 2.3 Hz, 1H), 6.38 (dt, J = 16.0, 6.1 Hz, 1H), 4.52 (ddd,J = 9.2, 9.2, 4.6 Hz, 1H), 4.28 (ddd, J = 10.5, 7.6, 3.7 Hz, 1H), 3.82 (dd, J = 15.8, 5.4 Hz, 1H), 3.49 (dd, J = 15.7, 5.8 Hz, 1H), 3.42-3.46 (m, 1H), 3.30 (dd, J = 14.6, 4.7 Hz, 1H), 3.08-3.16 (m, 2H), 2.99-3.07 (m, 1H), 2.87-2.95 (m, 2H), 2.75 (ddd, J = 14.5, 10.6, 5.2 Hz, 1H), 2.65-2.71 (m, 1H), 2.62 (ddd, J = 15.3, 10.5, 5.8 Hz, 1H), 2.28 (ddd, J = 15.4, 8.4, 6.6 Hz, 1H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.4, 171.4, 170.5, 151.4, 142.5, 140.1, 137.0, 136.5, 133.8, 132.0, 129.0, 128.3, 127.84, 127.80, 127.3, 127.1, 126.7, 126.1, 125.0, 123.9, 123.8, 121.4, 121.3, 118.83, 118.77, 112.8, 112.5, 111.84, 111.77, 110.9, 103.7, 68.9, 55.9, 54.3, 43.4, 36.9, 31.3, 30.5, 27.8. MS (ESI) Calculated for $C_{42}H_{42}N_6O_5S$ $[M+H]^+$: 743.3, found 743.2.

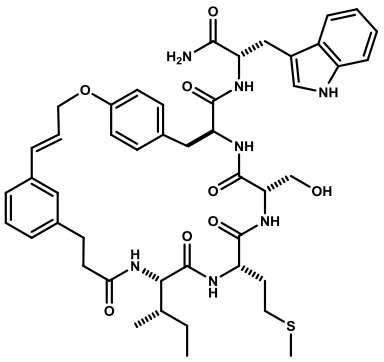
Cyclic- Ile-Ala-Arg-Tyr (11):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (13 mg, 0.019mmol, 84%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 8.01 (d, J = 7.4 Hz, 1H), 7.83 (d, J = 7.0 Hz, 1H), 7.72 (d, J = 8.1 Hz, 1H), 7.62 (d, J = 7.1 Hz, 1H), 7.44 (dd, J = 5.8, 5.8 Hz, 1H), 7.31 (br s, 1H), 7.21-7.25 (m, 1H), 7.19 (dd, J = 7.5, 7.5 Hz, 1H), 7.07-7.12 (m, 4H), 7.05 (d, J = 7.6 Hz, 1H), 6.81 (d, J = 8.5 Hz, 2H), 6.60 (d,

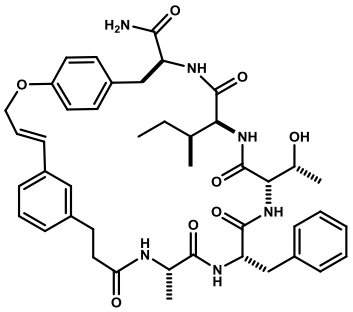
J = 16.3 Hz, 1H), 6.34 (dt, J = 16.1, 5.4 Hz, 1H), 4.71 (d, J = 5.3 Hz, 2H), 4.35 (ddd, J = 11.2, 8.3, 3.0 Hz, 1H), 4.05-4.15 (m, 3H), 2.96-3.03 (m, 3H), 2.85 (ddd, J = 13.8, 7.1, 7.1 Hz, 1H), 2.72 (ddd, J = 13.8, 6.8, 6.8 Hz, 1H), 2.64 (dd, J = 13.9, 11.4 Hz, 1H), 2.41-2.45 (m, 2H), 1.54-1.62 (m, 1H), 1.28-1.46 (m, 6H), 1.00 (d, J = 7.2 Hz, 3H), 0.76 (d, J = 6.1 Hz, 3H), 0.72 (d, J = 6.2 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.7, 172.7, 172.6, 172.5, 171.6, 158.9, 158.6, 141.9, 136.6, 132.6, 132.5, 130.4, 130.1, 128.9, 128.4, 126.9, 125.7, 124.3, 117.8, 115.4, 115.0, 68.2, 54.3, 52.6, 51.8, 48.8, 40.9, 36.8, 36.5, 30.9, 29.3, 25.3, 24.5, 23.4, 21.8, 18.5.MS (ESI) Calculated for$C_{36}H_{50}N_8O_6[M+H]^+$: 691.4, found 691.3.

Cyclic-Ile-Met-Ser-Tyr-Trp (12):



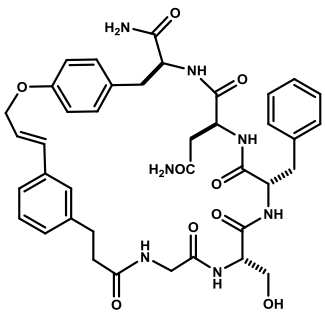
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (18 mg, 0.027mmol, 73%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.79 (s, 1H), 8.11 (d, J = 7.5 Hz, 1H), 7.97 (d, J = 8.1 Hz, 1H), 7.89 (d, J = 8.2 Hz, 1H), 7.81 (d, J = 7.5 Hz, 1H), 7.58 (d, J = 8.0 Hz, 1H), 7.55 (d, J = 7.2 Hz, 1H), 7.30 (d, J = 8.0 Hz, 1H), 7.17-7.24 (m, 4H), 7.11-7.16 (m, 4H), 7.01-7.08 (m, 2H), 6.97 (dd, J = 7.3, 7.3 Hz), 6.83 (d, J = 8.6 Hz, 2H), 6.56 (d, J = 15.9 Hz, 1H), 6.39 (dt, J = 16.1, 5.5 Hz, 1H), 4.76 (d, J = 5.2 Hz, 2H), 4.43 (ddd, J = 8.5, 8.5, 5.2 Hz, 1H), 4.22-4.33 (m, 3H), 4.10 (dd, J = 8.4, 6.0 Hz, 1H), 3.55 (dd, J = 10.4, 6.0 Hz, 1H), 3.49 (dd, J = 10.5, 6.7 Hz, 1H), 3.16 (dd, J = 14.7, 4.9 Hz, 1H), 2.82-2.96 (m, 3H), 2.70-2.77 (m, 1H), 2.50-2.60 (m, 2H), 2.40-2.46 (m, 1H), 2.27-2.39 (m, 1H), 1.92 (s, 3H), 1.71-1.89 (m, 2H), 1.60-1.69 (m, 1H), 1.12-1.20 (m, 1H), 0.85-0.95 (m, 1H), 0.56-0.62 (m, 6H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.8, 172.3, 171.49, 171.48, 171.3, 171.1, 157.1, 141.8, 136.7, 136.5, 132.7, 130.6, 130.2, 128.9, 128.6, 127.8, 126.2, 125.6, 124.7, 123.9, 121.3, 118.9, 118.8, 114.9, 111.7, 110.7, 68.1, 61.9, 57.7, 55.7, 55.2, 54.0, 52.2, 36.9, 36.4, 36.3, 32.0, 31.0, 29.6, 28.1, 24.5, 15.9, 14.9, 11.4.MS (ESI) Calculated for $C_{46}H_{57}N_7O_8S$ $[M+H]^+$: 868.4, found 868.0.

Cyclic- Ala-Phe-Thr-Ile-Tyr (13):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (14 mg, 0.018mmol, 85%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 8.10 (d, J = 7.3 Hz, 1H), 8.08 (d, J = 8.9 Hz, 1H), 7.55-7.62 (m, 4H), 7.49-7.54 (m, 3H), 7.30 (s, 1H), 7.23 (s, 1H), 7.15-7.20 (m, 6H), 7.09-7.14 (m, 3H), 7.01-7.05 (m, 2H), 6.79 (d, J = 8.5 Hz, 2H), 6.63 (d, J = 16.3 Hz, 1H), 6.40 (dt, J = 15.9, 5.7 Hz, 1H), 4.61-4.69 (m, 2H), 4.46 (ddd, J = 9.0, 9.0, 4.6 Hz, 1H), 4.34-4.39 (m, 1H), 4.20 (dd, J = 8.04, 4.6 Hz, 1H), 4.12-4.17 (m, 2H), 3.85 (dq, J = 5.7, 5.7 Hz, 1H), 3.04 (J = 14.0, 4.4 Hz, 1H), 2.85-2.90 (m, 1H), 2.69-2.84 (m, 4H), 2.29-2.36 (m, 1H), 1.62-1.70 (m, 1H), 1.28-1.36 (m, 1H), 1.04 (d, J = 7.0 Hz, 3H), 0.93-1.01 (m, 1H), 0.82 (d, J = 6.1 Hz, 3H), 0.76 (d, J = 6.6 Hz, 3H), 0.73 (t, J = 7.5 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.4, 172.8, 171.8, 171.1, 171.0, 169.5, 157.1, 141.8, 138.1, 136.4, 133.4, 132.7, 132.45, 132.37, 131.84, 131.77, 130.5, 130.1, 129.5, 129.1, 129.0, 128.7, 128.4, 128.3, 126.5, 125.7, 125.4, 124.6, 114.6, 68.2, 67.0, 58.1, 57.1, 54.2, 54.0, 48.7, 37.2, 37.0, 36.6, 35.7, 30.4, 24.3, 18.9, 18.5.MS (ESI) Calculated for $C_{43}H_{54}N_6O_8$ $[M+H]^+$: 783.4, found 783.3.

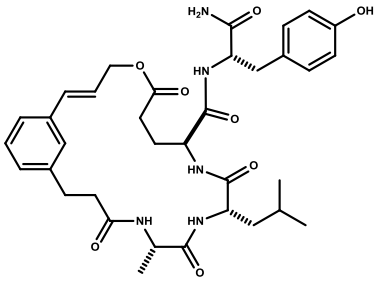
Cyclic-Gly-Ser-Phe-Asn-Tyr (14):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (12 mg, 0.016mmol, 74%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.17 (t, J = 5.7 Hz, 1H), 8.15 (d, J = 8.7 Hz, 1H), 8.06 (d, J = 7.9 Hz, 1H), 7.84 (d, J = 8.0 Hz, 1H), 7.72 (d, J = 8.1 Hz, 1H), 7.45 (br s, 1H), 7.28 (br s, 1H), 7.24 (d, J = 7.6 Hz, 1H), 7.17-7.22 (m, 2H), 7.12-7.17 (m, 3H), 7.05-7.11 (m, 3H), 7.04-7.10 (m, 5H), 6.95-7.01 (m, 1H), 6.80 (d, J = 8.9 Hz,

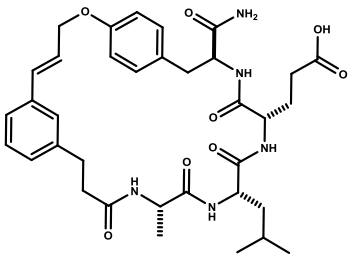
2H), 6.12 (d, J = 16.3 Hz, 1H), 6.33 (dt,J = 16.2, 5.8 Hz, 1H), 4.61 (d, J = 13.8, 6.2 Hz, 1H), 4.46-4.56 (m, 2H), 3.64 (ddd, J = 8.6, 8.6, 4.4 Hz), 4.30 (ddd, J = 7.6, 6.0, 6.0 Hz, 1H), 4.22 (ddd, J = 11.0, 8.2, 3.0 Hz, 1H), 3.77 (dd, J = 16.7, 6.0 Hz, 1H), 3.64 (dd, J = 16.6, 5.3 Hz, 1H), 3.42-3.50 (m, 2H), 3.07 (dd, J = 14.0, 3.0 Hz, 1H), 2.74-2.94 (m, 3H), 2.70 (dd, J = 14.0, 11.1 Hz, 1H), 2.49-2.61 (m, 3H), 2.38-2.46 (m, 1H), 2.35 (dd, J = 15.6, 6.0 Hz, 1H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.8, 172.43, 172.41, 171.0, 170.5, 170.1, 169.5, 157.2, 142.2, 137.8, 136.7, 132.9, 130.7, 130.5, 129.8, 128.8, 128.5, 128.4, 126.8, 126.6, 125.3, 124.2, 114.8, 68.5, 61.7, 55.2, 55.0, 54.1, 50.0, 42.6, 38.3, 37.5, 36.3, 36.1.MS (ESI) Calculated for $C_{39}H_{45}N_7O_9$ $[M+H]^+$: 756.3, found 756.2.

Cyclic-Ala-Leu-Glu-Tyr (16):



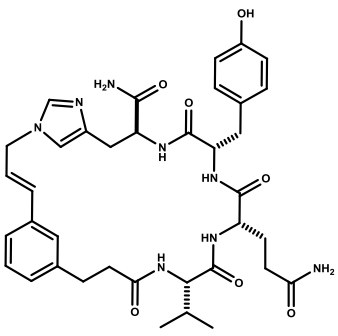
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (17 mg, 0.026 mmol, 67%). ^{1}H NMR (DMSO-d_6, 600 MHz): δ 8.03 (d, J = 5.8 Hz,1H), 7.99 (d, J = 7.2 Hz, 1H), 7.93 (d, J = 9.1 Hz, 1H), 7.45 (d, J = 7.9 Hz, 1H), 7.35-7.42 (m, 2H), 7.12-7.19 (m, 2H), 6.98-7.06 (m, 2H), 6.96 (d, J = 8.1 Hz, 2H), 6.59 (d, J = 8.2 Hz, 2H), 6.54 (d, J = 16.6 Hz, 1H), 6.33 (dt, J = 15.9, 4.6 Hz, 1H), 4.80-4.87 (m, 1H), 4.54-4.61 (m, 1H), 4.13-4.35 (m, 4H), 2.78-2.92 (m, 2H), 2.61-2.71 (m, 1H), 2.22-2.40 (m, 3H), 1.64-1.74 (m, 1H), 1.62-1.61 (m, 1H), 1.32-1.46 (m, 2H), 0.99 (d, J = 6.2 Hz, 3H), 0.85 (d, J = 6.2 Hz, 3H), 0.81 (d, J = 7.0 Hz, 3H). ^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.1, 172.6, 172.4, 172.3, 171.6, 170.7, 156.1, 141.7, 136.4, 131.6, 130.4, 128.7, 128.4, 128.0, 125.5, 124.4, 123.9, 115.2, 63.4, 54.2, 51.6, 51.5, 48.4, 37.2, 34.1, 30.0, 29.9, 27.9, 24.5, 23.2, 22.1, 19.2. MS (ESI) Calculated for $C_{35}H_{45}N_5O_8$ $[M+H]^+$: 664.3, found 664.2.

Cyclic-Ala-Leu-Glu-Tyr (17):



Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Xbridge RP18 20x250 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (11 mg, 0.160 mmol, 76%). ^{1}H NMR (DMSO-d_6, 600 MHz): δ 12.04 (s, 1H), 8.1 (d, J = 6.9 Hz, 1H), 7.82 (d, J = 7.8 Hz, 1H), 7.71 (d, J = 8 Hz, 1H), 7.56 (d, J = 7.2 Hz, 1H), 7.31 (br. s, J = Hz, 1H), 7.17-7.22 (m, 3H), 7.02-7.13 (m, 4H), 6.83 (d, J = 8.6 Hz, 2H), 6.65 (d, J = 16 Hz, 1H), 6.37 (dt, J = 16.0, 5.6 Hz, 1H), 4.76 (d, J = 5.1 Hz, 2H), 4.32 (ddd, J = 10.9, 8.1, 3.1 Hz, 1H), 4.18 (dt, J = 7.6, 7.6 Hz, 1H), 4.02-4.13 (m, 2H), 2.96 (ddd, J = 14.2, 2.8 Hz, 1H), 2.76-2.82 (m, 2H), 2.67 (ddd, J = 14.3, 10.9 Hz, 1H), 2.36-2.42 (m, 1H), 2.11-2.23 (m, 2H), 1.79-1.89 (m, 1H), 1.66-1.76 (m, 1H), 1.57 (dddd, J = 13.3, 13.3, 6.7, 6.7 Hz, 1H), 1.40-1.48 (m, 2H), 1.03 (d, J = 7.2 Hz, 3H), 0.84 (d, J = 6.6 Hz, 3H), 0.81 (d, J = 6.6 Hz, 3H). ^{13}C NMR (DMSO-d_6, 150 MHz): δ 173.9, 172.6, 172.2, 171.85, 171.8, 170.9, 156.6, 141.4, 136.0, 132.4, 132.3, 130.2, 128.3, 127.9, 126.0, 125.4, 124.3, 114.5, 67.7, 54.0, 51.6, 51.1, 48.9, 40.1, 36.3, 35.6, 30.2, 29.6, 26.7, 23.5, 22.9, 21.2, 17.3. MS (ESI) Calculated for $C_{35}H_{45}N_5O_8$ $[M+H]^+$: 664.3, found 664.3.

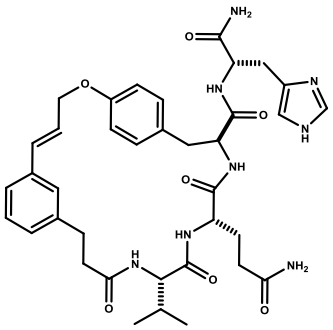
Cyclic-Val-Gln-Tyr-His (19):



Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (14mg, 0.020 mmol, 75%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 9.16 (br. s, J = Hz, 1H), 9.02 (s, 1H), 8.31 (br. s, J = Hz, 1H), 8.1 (d, J = 8.3 Hz, 1H), 7.93 (d, J = 6.9 Hz, 1H), 7.73 (d, J = 5.6 Hz, 1H), 7.26-7.36 (m, 4H), 7.21 (d, J = 7.5 Hz, 1H), 7.15 (br. d, J = 7.8 Hz, 1H), 7.11 (br. d, J = 7.5 Hz, 1H), 7.01 (br. s, J = Hz, 1H), 6.97 (d, J = 8.6 Hz, 2H), 6.81 (br. s, J = Hz, 1H), 6.75 (d, J = 15.6 Hz, 1H), 6.59 (d, J = 8.4 Hz, 2H), 6.38 (dt, J = 15.4, 7.0 Hz, 1H), 4.92 (dd, J = 14.9, 5.9 Hz, 1H), 4.88 (dd, J = 14.9, 7.3 Hz, 1H), 4.47 (ddd, J = 10.6, 8.5, 3.4 Hz, 1H), 4.28 (ddd, J = 8.9, 7.9, 5.0 Hz, 1H), 3.99 (ddd, J = 7.8, 5.7, 5.7 Hz, 1H), 3.82-3.88 (m, 1H), 3.16 (dd, J = 15.2, 3.1 Hz, 1H), 2.86-2.94 (m, 2H), 2.79-2.85 (m, 2H), 2.74 (dd, J = 14.3, 9.4 Hz, 1H), 2.54-2.63 (m, 1H), 2.45-2.5 (m, 1H), 1.98-

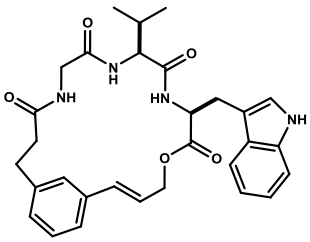
2.13 (m, 2H), 1.92 (ddd, J = 13.6, 12.5, 6.8 Hz, 1H), 1.77 (ddd, J = 13.8, 13.8, 7.0 Hz, 1H), 1.65 (ddd, J = 14.6, 14.6, 7.6 Hz, 1H), 0.67 (dd, J = 6.7, 2.0 Hz, 6H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 174.0, 173.1, 173.0, 172.2, 172.1, 171.1, 155.7, 141.4, 135.7, 135.5, 134.8, 134.3, 130.7, 130.1, 129.0, 128.4, 125.6, 125.5, 122.2, 118.2, 114.9, 59.0, 54.7, 53.9, 51.1, 50.1, 35.9, 35.6, 31.1, 30.6, 29.0, 26.6, 26.4, 18.2. MS (ESI) Calculated for $C_{37}H_{46}N_8O_7$ $[M+H]^+$: 715.4, found 715.0

Cyclic-Val-Gln-Tyr-His (20):



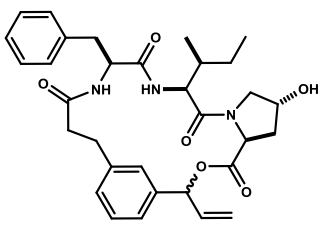
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (12 mg, 0.017 mmol, 68%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.95 (d, J = 1.1 Hz, 1H), 8.28 (d, J = 8.3 Hz, 1H), 7.92 (d, J = 6.9 Hz, 1H), 7.85 (d, J = 7.6 Hz, 1H), 7.50-7.55 (m, 2H), 7.34-7.38 (m, 2H), 7.28 (br. s, J = Hz, 2H), 7.14-7.17 (m, 2H), 7.13 (d, J = 8.7 Hz, 2H), 7.00-7.04 (m, 1H), 6.84 (d, J = 8.7 Hz, 2H), 6.81 (br. s, J = Hz, 1H), 6.67 (d, J = 16 Hz, 1H), 6.55 (ddd, J = 15.9, 6.6, 5.6 Hz, 1H), 4.78 (dd, J = 14.5, 4.9 Hz, 1H), 4.7 (dd, J = 14.5, 6.9 Hz, 1H), 4.52 (ddd, J = 8.2, 8.2, 5.5 Hz, 1H), 4.26 (ddd, J = 10.0, 7.0, 2.4 Hz, 1H), 4.15 (ddd, J = 7.5, 7.5, 7.5 Hz, 1H), 3.94 (dd, J = 8.6, 6.7 Hz, 1H), 3.11 (dd, J = 15.5, 5.4 Hz, 1H), 2.92 (dd, J = 15.3, 8.2 Hz, 1H), 2.80-2.88 (m, 3H), 2.65 (dd, J = 14.1, 11.7 Hz, 1H), 2.33-2.42 (m, 1H), 1.96-2.09 (m, 2H), 1.71-1.80 (m, 1H), 1.55-1.64 (m, 1H), 1.42 (ddd, J = 13.4, 13.4, 6.7 Hz, 1H), 0.21 (d, J = 7.1 Hz, 3H), 0.19 (d, J = 7.8 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 174.5, 172.2, 171.9, 171.5, 171.0, 157.2, 141.0, 136.7, 134.14, 134.07, 130.6, 129.9, 129.6, 129.2, 128.7, 125.7, 125.4, 125.2, 117.3, 114.9, 68.4, 57.2, 55.5, 52.0, 51.8, 36.3, 34.4, 32.2, 31.8, 30.6, 27.4, 26.9, 19.1, 18.2. MS (ESI) Calculated for $C_{37}H_{46}N_8O_7$ $[M+H]^+$: 715.4, found 715.4

Cyclic-Gly-Val-Trp (21):



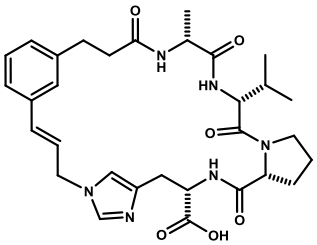
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (21 mg, 0.039 mmol, 74%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.82 (s, 1H), 8.31 (d, J = 7.2 Hz, 1H), 8.18 (dd, J = 6.8, 4.3 Hz, 1H), 7.55 (d, J = 8.3 Hz, 1H), 7.47 (d, J = 8.3 Hz, 1H), 7.27-7.31 (m, 2H), 8.10-7.18 (m, 3H), 7.00-7.05 (m, 2H), 6.95 (dd, J = 7.8, 7.8 Hz, 1H), 6.58 (d, J = 15.9 Hz, 1H), 6.11 (dt, J = 16.0, 5.3 Hz, 1H), 4.79 (ddd, J = 13.9, 5.0, 1.3 Hz, 1H), 4.40-4.48 (m, 2H),4.02-4.48 (m, 2H), 4.02-4.14 (m, 3H), 3.57 (dd, J = 17.3, 3.9 Hz, 1H), 3.20 (dd, J = 14.8, 5.9 Hz, 1H), 3.10 (dd, J = 14.9, 9.1 Hz, 1H), 2.91-2.97 (m, 1H), 2.82 (ddd, J = 14.7, 8.9, 1.9 Hz, 1H), 2.59 (ddd, J = 15.2, 9.8, 2.1 Hz, 1H), 2.32 (ddd, J = 15.2, 8.9, 2.5 Hz, 1H), 1.90-1.98 (m, 1H), 0.69 (d, J = 6.8 Hz, 3H), 0.60 (d, J = 7.0 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 172.3, 171.6, 171.0, 169.4, 141.9, 136.5, 136.4, 131.4, 128.3, 128.2, 127.3, 125.4, 123.9, 123.5, 123.2, 120.9, 118.4, 117.9, 111.3, 110.0, 64.4, 57.1, 53.4, 42.2, 35.4, 30.6, 29.6, 26.3, 19.3, 17.0. MS (ESI) Calculated for $C_{30}H_{34}N_4O_5$ $[M+H]^+$: 531.3, found 531.3.

Cyclic-Phe-Leu-Hyp (22):



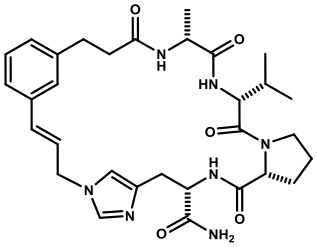
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (16 mg, 0.029mmol, 71%).^{1}H NMR (DMSO-d_6, 500 MHz, mix of diastereomers): δ 8.35 (d, J = 7.6 Hz, 1H), 8.28 (d, J = 8.3 Hz, 1H), 8.13 (d, J = 8.4 Hz, 1H), 7.32-7.37 (m, 3H), 7.12-7.29 (m, 1H), 6.98-7.10 (m, 4H), 6.83 (ddd, J = 16.0, 9.0, 4.1 Hz, 1H), 6.65 (d, J = 16.2 Hz, 1H), 6.59 (d, J = 16.2 Hz, 1H), 6.12 (ddd, J = 16.2, 6.0, 4.0 Hz, 1H), 5.28 (ddd, J = 12.5, 3.9, 1.7 Hz, 1H), 5.02 (ddd, J = 14.1, 3.8, 1.7 Hz, 1H), 4.32-4.57 (m, 10H), 3.94-3.60 (m, 4H), 3.13 (dd, J = 14.2, 4.5 Hz, 2H), 2.94-3.07 (m, 3H), 2.64-2.73 (m, 3H), 2.50-2.58 (m, 2H), 2.38-2.46 (m, 2H), 2.24-2.34 (m, 2H), 2.07-2.21 (m, 2H), 1.88 (ddd, J = 13.7, 10.2, 4.1 Hz, 1H), 1.62-1.72 (m, 1H), 1.53 (ddd, J = 14.3, 12.4, 3.4 Hz, 1H), 1.32-1.43 (m, 1H), 1.18-1.29 (m, 3H), 1.06 (ddd, J = 14.2, 10.9, 3.4 Hz, 1H), 0.85 (d, J = 6.7 Hz, 3H), 0.83 (d, J = 6.4 Hz, 3H), 0.74 (d, J = 6.4 Hz, 3H), 0.53 (d, J = 6.6 Hz, 3H).MS (ESI) Calculated for $C_{32}H_{39}N_3O_6$[M+H]$^+$: 562.3, found 562.3.

Cyclic-Ala-Val-Pro-His-OH (23):



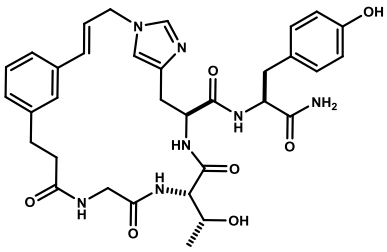
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (16 mg, 0.029mmol, 69%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 9.05 (s, 1H), 8.12 (d, J = 7.9 Hz, 1H), 8.04 (d, J = 7.7 Hz, 1H), 7.48 (s, 1H), 7.43 (d, J = 8.9 Hz, 1H), 7.16-7.27 (m, 3H), 7.09-7.14 (m, 1H), 6.66 (d, J = 15.9 Hz, 1H), 6.34 (dt, J = 16.0, 6.6 Hz, 1H), 4.84-4.98 (m, 2H), 4.22-4.30 (m, 2H), 4.18 (dd, J = 8.5, 3.6 Hz, 1H), 4.09 (t, J = 8.9 Hz, 1H), 3.55-3.63 (m, 1H), 3.48-3.46 (m, 1H), 3.05-3.18 (m, 2H), 2.9 (ddd, J = 14.7, 9.9, 4.3 Hz, 1H), 2.7 (ddd, J = 11.2, 6.4, 4.4 Hz, 1H), 2.61 (ddd, J = 15.0, 10.2, 4.1 Hz, 1H), 2.33-2.41 (m, 1H), 1.60-1.86 (m, 3H), 1.13 (d, J = 7.1 Hz, 3H), 0.79 (d, J = 6.6 Hz, 3H), 0.57 (d, J = 6.7 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ172.5, 172.13, 172.07, 171.5, 170.5, 141.9, 135.9, 135.4, 135.0, 130.9, 129.0, 129.0, 127.1, 124.2, 122.6, 120.4, 60.0, 56.0, 51.4, 50.9, 48.6, 47.4, 35.3, 30.6, 29.9, 29.5, 26.0, 24.6, 19.5, 18.6, 18.5.MS (ESI) Calculated for $C_{31}H_{40}N_6O_6$ $[M+H]^+$: 593.3, found 593.1

Cyclic-Ala-Val-Pro-His-NH$_2$ (24):



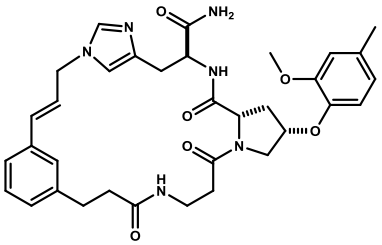
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (74 mg, 0.13mmol, 77%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 9.08 (d, J = 1.4 Hz, 1H), 8.17 (d, J = 8.3 Hz, 1H), 8.03 (d, J = 8.0 Hz, 1H), 7.67 (d J = 8.9 Hz, 1H), 7.40 (s, 1H), 7.34 (br. s, 1H), 7.21-7.29 (m, 2H), 7.11-7.20 (m, 3H), 6.56 (d, J = 16.0 Hz, 1H), 6.35 (dt, J = 16.0, 6.2 Hz, 1H), 4.89-5.00 (m, 2H), 4.25-4.36 (m, 2H), 4.11-4.19 (m, 2H), 3.53-3.61 (m, 1H), 3.29-3.37 (m, 1H), 3.03-3.13 (m, 2H), 2.79-2.89 (m, 1H), 2.65-2.73 (m, 1H), 2.48-2.55 (m, 1H), 2.40 (ddd, J = 15.0, 6.5, 6.5 Hz, 1H), 1.79-1.88 (m, 1H), 1.63-1.77 (n, 2H), 1.52-1.62 (m, 1H), 1.12 (d, J = 7.0 Hz, 3H), 0.75 (d, J = 6.7 Hz, 3H), 0.71 (d, J = 6.6 Hz,1H).^{13}C NMR (DMSO-d_6, 125 MHz): δ172.6, 172.2, 172.1, 171.6, 170.7, 142.1, 135.9, 135.1, 134.5, 130.7, 129.0, 128.5, 127.8, 124.1, 123.3, 120.4, 60.4, 56.1, 51.9, 50.6, 49.1, 48.2, 47.5, 35.7, 30.8, 29.9, 29.3, 26.4, 24.9, 19.6, 18.6, 18.0.MS (ESI) Calculated for $C_{31}H_{41}N_7O_5$ $[M+H]^+$: 592.3, found 592.3

Cyclic-Gly-Thr-His-Tyr-NH$_2$ (25):



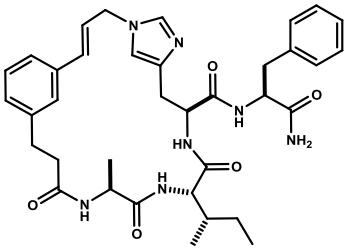
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Xbridge RP18 20x250 mm) using a gradient of 25-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (24 mg, 0.038mmol, 73%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.99 (br. s, 1H), 8.14 (t, J = 5.9 Hz, 2H), 8.05 (d, J = 8.3 Hz, 1H), 7.96 (d, J = 7.7 Hz, 1H), 7.73 (d, J = 8.2 Hz, 1H), 7.54 (br. s, 1H), 7.4 (br. s, 1H), 7.36 (br. s, 1H), 7.19-7.22 (m, 2H), 7.16 (br. d, J = 7.6 Hz, 1H), 7.08 (br. d, J = 7.6 Hz, 1H), 7 (d, J = 8.5 Hz, 2H), 6.74 (d, J = 15.7 Hz, 1H), 6.61 (d, J = 8.1 Hz, 2H), 6.49 (dt, J = 15.6, 7.1 Hz, 1H), 4.92 (dd, J = 14.8, 6.4 Hz, 1H), 4.8 (dd, J = 14.8, 7.3 Hz, 1H), 4.53 (ddd, J = 8.5, 8.5, 3.8 Hz, 1H), 4.28 (ddd, J = 8.7, 8.7, 4.7 Hz, 1H), 4.63 (dd, J = 7.6, 4.0 Hz, 1H), 3.92 (dq, J = 6.2, 6.2 Hz, 1H), 3.8 (dd, J = 15.6, 5.6 Hz, 1H), 3.75 (dd, J = 16.6, 6.2 Hz, 1H), 3.05 (dd, J = 15.5, 3.6 Hz, 1H), 2.81-2.94 (m, 4H), 2.67 (dd, J = 13.8, 9.3 Hz, 1H), 2.34-2.41 (m, 1H), 1.04 (d, J = 6.4 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.7, 172.2, 170.5, 170.1, 169.9, 156.3, 142.3, 136.8, 136.0, 134.7, 130.6, 130.2, 129.5, 128.8, 128.2, 125.6, 125.4, 122.3, 120.2, 115.4, 67.2, 58.6, 55.1, 51.5, 51.0, 42.0, 37.1, 35.4, 29.9, 26.9, 20.2.MS (ESI) Calculated for $C_{33}H_{39}N_7O_7$ $[M+H]^+$: 646.3, found 646.1.

Cyclic-β-Ala-Pro[4-(2-methoxy-4-methylphenoxy)]-His (26):



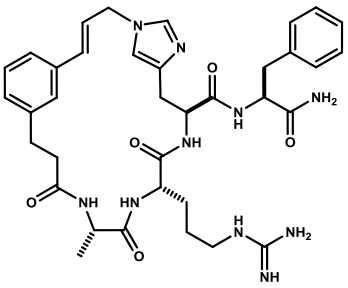
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (57 mg, 0.091 mmol, 81%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.85 (d, J = 1.2 Hz, 1H), 7.78 (d, J = 7.5 Hz, 1H), 7.65 (t, J = 5.7 Hz, 1H), 7.21-7.31 (m, 5H), 7.15-7.20 (m, 2H), 6.83 (d, J = 8 Hz, 1H), 6.78 (d, J = Hz, 1H), 6.66-6.74 (m, 2H), 6.38 (dt, J = 15.7, 7.0 Hz, 1H), 4.89 (dd, J = 14.8, 6.4 Hz, 1H), 4.70-4.75 (m, 1H), 4.59 (dd, J = 14.7, 7.3 Hz, 1H), 4.35-4.42 (m, 2H), 3.71 (s, 3H), 3.67-3.70 (m, 1H), 3.34 (br. d, J = 11.3 Hz, 1H), 3.17 (m, 1H), 3.07 (d, J = 6.4 Hz, 2H), 2.92-3.00 (m, 1H), 2.84-2.90 (m, 1H), 2.78-2.83 (m, 1H), 2.27-2.41 (m, 3H), 2.25 (s, 3H), 2.15-2.23 (m, 2H), 1.85-2.00 (m, 2H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 171.5, 171.2, 171.0, 170.6, 150.1, 143.4, 142.6, 141.3, 136.1, 134.6, 132.5, 132.2, 129.1, 128.5, 126.7, 124.9, 122.2, 120.8, 118.8, 118.1, 113.4, 77.9, 58.7, 55.4, 52.7, 50.9, 50.3, 36.7, 34.4, 33.8, 33.5, 31.4, 20.7. MS (ESI) Calculated for $C_{34}H_{40}N_6O_6$ $[M+H]^+$: 629.3, found 629.3

Cyclic-Ala-Ile-His-Phe-NH$_2$ (27):



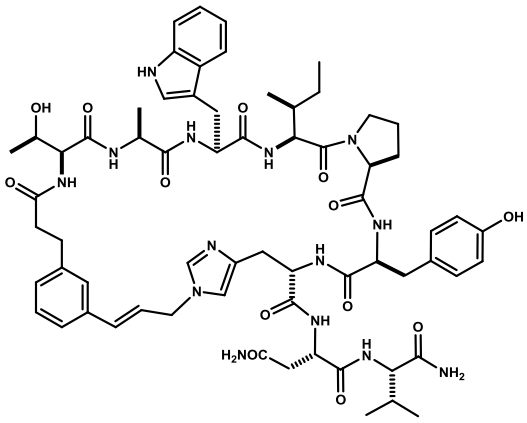
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (25 mg, 0.032 mmol, 71%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 9.04 (d, J = 1.5 Hz, 1H), 8.12 (d, J = 8.6 Hz, 1H), 8 (d, J = 5.7 Hz, 1H), 7.86 (d, J = 8.1 Hz, 1H), 7.75 (d, J = 7.3 Hz, 1H), 7.59 (br. s, 1H), 7.55 (br. s, 1H), 7.44 (br. s, 1H), 7.14-7.25 (m, 7H), 7.1 (d, J = 7.7 Hz, 1H), 7.06 (d, J = 7.7 Hz, 1H), 6.71-6.82 (m, 2H), 4.85-4.96 (m, 2H), 4.61 (ddd, J = 8.3, 9.3, 3.8 Hz, 1H), 4.44 (ddd, J = 8.1, 8.1, 5.0 Hz, 1H), 4.14 (dq, J = 6.7, 6.7 Hz, 1H), 3.86 (t, J = 7.6 Hz, 1H), 2.87-3.04 (m, 4H), 2.81 (ddd, J = 13.8, 8.3 Hz, 1H), 2.70-2.77 (m, 1H), 2.40-2.46 (m, 2H), 1.52-1.62 (m, 1H), 1.36-1.46 (m, 1H), 1 (d, J = 7 Hz, 3H), 0.74 (t, J = 7.5 Hz, 3H), 0.75 (d, J = 6.8 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.2, 173.1, 172.0, 171.8, 170.2, 142.1, 137.8, 136.2, 136.1, 134.8, 130.5, 129.7, 129.5, 128.7, 128.5, 126.8, 126.1, 124.6, 123.1, 119.8, 57.9, 54.2, 51.2, 51.1, 48.8, 38.2, 36.1, 34.5, 29.9, 27.3, 25.1, 18.4, 15.8, 11.4. MS (ESI) Calculated for $C_{36}H_{45}N_7O_5$ $[M+H]^+$: 656.3, found 656.2

Cyclic-Ala-Arg-His-Phe-NH$_2$ (28):



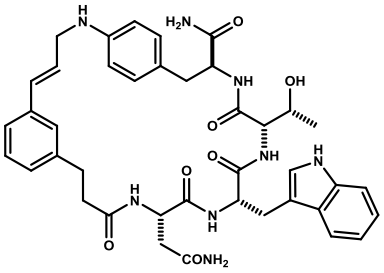
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (36 mg, 0.044mmol, 76%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 9.03 (s, 1H), 8.11-8.14 (m, 2H), 7.97 (d, J = 6.2 Hz, 1H), 7.96 (d, J = 7.7 Hz, 1H), 7.7 (br. s, 1H), 7.48 (br. s, 1H), 7.38-7.41 (m, 2H), 7.28 (br. s, 1H), 7.14-7.25 (m, 7H), 7.1 (d, J = 7.4 Hz, 1H), 7.04 (d, J = 7.6 Hz, 1H), 6.8 (ddd, J = 15.7, 7.9, 5.6 Hz, 1H), 6.74 (d, J = 15.7 Hz, 1H), 4.91 (dd, J = 14.6, 5.2 Hz, 1H), 4.86 (dd, J = 14.8, 8.0 Hz, 1H), 4.57 (ddd, J = 8.7, 8.7, 3.5 Hz, 1H), 4.41 (ddd, J = 8.5, 8.5, 4.9 Hz, 1H), 4.05 (dq, J = 7.2, 7.2 Hz, 1H), 3.91-3.96 (m, 1H), 2.96-3.03 (m, 5H), 2.88 (dd, J = 15.6, 9.4 Hz, 1H), 2.79 (dd, J = 13.8, 8.9 Hz, 1H), 2.71 (dd, J = 15.0, 7.8 Hz, 1H), 2.34-2.41 (m, 2H), 1.40-1.52 (m, 4H), 1.09 (d, J = 7 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.5, 173.4, 172.3, 172.1, 170.2, 157.1, 142.1, 137.9, 136.3, 136.3, 134.8, 130.4, 129.7, 129.4, 128.7, 128.6, 126.9, 126.1, 124.5, 123.0, 119.7, 117.6, 115.3, 54.3, 52.9, 51.1, 51.0, 49.0, 40.9, 38.1, 34.4, 29.7, 28.7, 27.5, 25.6, 18.1. MS (ESI) Calculated for $C_{36}H_{46}N_{10}O_5$ $[M+H]^+$:699.4, found 699.2

Cyclic-Thr-Ala-Trp-Ile-Pro-Tyr-His-Asn-Val (29):



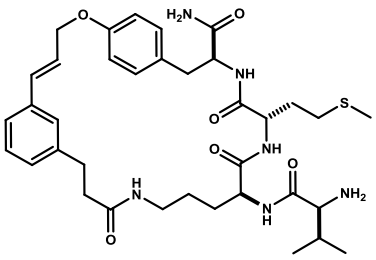
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (25 mg, 0.020 mmol, 69%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.8 (d, J = 1.7 Hz, 1H), 9.04 (s, 1H), 8.33 (d, J = 7.2 Hz, 1H), 8.18 (d, J = 7.3 Hz, 1H), 7.98 (d, J = 6 Hz, 1H), 7.89 (d, J = 7.8 Hz, 1H), 7.73-7.82 (m, 2H), 7.54 (d, J = 8.7 Hz, 1H), 7.40-7.48 (m, 3H), 7.28-7.32 (m, 2H), 7.12-7.21 (m, 6H), 7.08-7.11 (m, 2H), 7.00-7.05 (m, 3H), 6.94 (t, J = 7.3 Hz, 1H), 6.63 (d, J = 15.9 Hz, 1H), 6.44 (dt, J = 15.9, 6.5 Hz, 1H), 4.9 (d, J = 6.1 Hz, 2H), 4.53-4.61 (m, 2H), 4.25-4.40 (m, 4H), 4.06-4.16 (m, 3H), 3.99 (dq, J = 6.9, 6.9 Hz, 1H), 3.37-3.44 (m, 1H), 3.14 (ddd, J = 15.6, 15.6, 4.8 Hz, 1H), 2.89-3.03 (m, 2H), 2.63-2.66 (m, 3H), 2.50-2.60 (m, 2H), 2.28-2.31 (m, 1H), 2.02 (dddd, J = 13.3, 6.7, 6.7, 6.7 Hz, 1H), 1.84-1.92 (m, 1H), 1.58-1.75 (m, 3H), 1.37-1.47 (m, 1H), 1.04 (d, J = 7.2 Hz, 3H), 0.94-1.01 (m, 1H), 0.93 (d, J = 6 Hz, 3H), 0.8 (d, J = 7.3 Hz, 3H), 0.79 (d, J = 6.7 Hz, 3H), 0.7 (d, J = 7.3 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.1, 172.7, 172.4, 172.4, 172.1, 171.7, 171.5, 171.3, 170.7, 170.2, 170.1, 142.2, 138.4, 136.5, 136.0, 135.1, 135.0, 130.1, 129.4, 128.9, 128.5, 127.7, 126.75, 126.70, 125.1, 123.9, 123.0, 121.3, 120.3, 118.8, 118.6, 117.7, 115.4, 111.8, 110.5, 67.1, 60.3, 58.5, 58.0, 55.5, 54.9, 54.6, 51.7, 50.7, 50.5, 49.8, 47.5, 37.5, 37.1, 36.8, 36.5, 31.8, 30.7, 29.4, 27.6, 27.4, 24.6, 24.5, 20.2, 19.8, 18.0, 17.9, 15.7, 11.3. MS (ESI) Calculated for $C_{65}H_{84}N_{14}O_{13}$ $[M+H]^+$: 1269.6, found 1269.4

Cyclic-Asn-Trp-Thr-Phe(4-NH_2) (30):



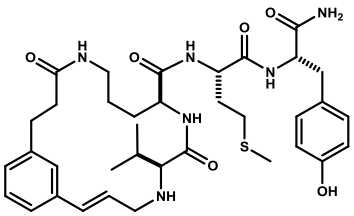
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Xbridge RP18 20x250 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (48 mg, 0.064 mmol, 77%).b^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.81 (d, J = 1.4 Hz, 1H), 8.31 (d, J = 6.1 Hz, 1H), 7.9 (d, J = 5.8 Hz, 1H), 7.55 (d, J = 7.3 Hz, 1H), 7.45-7.52 (m, 1H), 7.28 (d, J = 8.1 Hz, 1H), 7.19-7.25 (m, 4H), 7.17 (d, J = 7.5 Hz, 1H), 7.08-7.14 (m, 2H), 6.99-7.08 (m, 4H), 6.89-6.96 (m, 1H), 6.51 (d, J = 15.9 Hz, 1H), 6 (dt, J = 15.7, 6.5 Hz, 1H), 4.41 (ddd, J = 6.6, 6.6, 6.6 Hz, 1H), 4.33 (ddd, J = 5.9, 5.9, 5.9 Hz, 1H), 4.26 (ddd, J = 10.9, 7.9, 3.0 Hz, 1H), 3.89-3.98 (m, 2H), 3.81-3.88 (m, 2H), 3.03-3.11 (m, 3H), 2.63-2.80 (m, 3H), 2.26-2.45 (m, 4H), 0.7 (d, J = 6.1 Hz, 3H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.8, 173.1, 172.6, 172.4, 172.0, 170.5, 142.1, 136.6, 136.3, 130.5, 129.1, 128.5, 127.8, 126.4, 125.0, 124.5, 121.4, 119.4, 118.8, 118.7, 118.5, 117.1, 114.8, 112.5, 111.8, 109.7, 66.6, 59.9, 55.2, 54.8, 51.4, 36.8, 36.7, 36.4, 30.6, 27.1, 19.4. MS (ESI) Calculated for $C_{40}H_{46}N_8O_7$ $[M+H]^+$: 751.4, found 751.2.

Cyclic-Val-Orn-Met-Try (32):



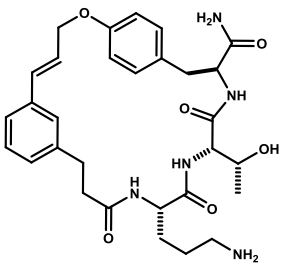
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters Xbridge RP18 20x250 mm) using a gradient of 20-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (12 mg, 0.017 mmol, 64%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.38 (d, J = 7.9 Hz, 1H), 8.11 (d, J = 8.3 Hz, 1H), 7.97-8.04 (m, 4H), 7.72 (dd, J = 5.2, 5.2 Hz, 1H), 7.55 (s, 1H), 7.31 (s, 1H), 7.15-7.20 (m, 3H), 7.13 (br. d, J = 7.6 Hz, 1H), 7.06 (br. s, J = Hz, 1H), 7.01 (br. d, J = 7.4 Hz, 1H), 6.83 (br. d, J = 8.1 Hz, 2H), 6.67 (d, J = 15.9 Hz, 1H), 6.31 (dt, J = 15.9, 6.0 Hz, 1H), 4.73-4.81 (m, 2H), 4.29-4.38 (m, 2H), 4.21-4.27 (m, 1H), 3.52-3.58 (m, 1H), 2.95-3.02 (m, 1H), 2.84-2.94 (m, 2H), 2.71-2.72 (m, 2H), 2.62 (dd, J = 12.9, 12.2 Hz, 1H), 2.31-2.37 (m, 2H), 2.21-2.22 (n, J = Hz, 1H), 1.93-2.01 (n, J = Hz, 4H), 1.86-1.93 (n, J = Hz, 1H), 1.71 (ddd, J = 15.1, 15.1, 7.7 Hz, 1H), 1.42-1.50 (m, 1H), 1.31-1.40 (m, 2H), 1.20-1.28 (m, 1H), 0.88 (d, J = 7 Hz, 6H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.6, 171.8, 171.32, 171.28, 168.1, 157.0, 142.1, 136.5, 133.0, 130.8, 130.7, 129.0, 128.7, 125.8, 125.7, 125.4, 114.8, 67.7, 57.6, 55.3, 52.6, 52.0, 38.5, 37.9, 37.2, 33.6, 31.8, 30.4, 29.5, 25.8, 18.7, 18.2, 15.0. MS (ESI) Calculated for $C_{36}H_{50}N_6O_6S$ $[M+H]^+$: 695.4, found 695.2

Cyclic-Val-Orn-Met-Try (33):



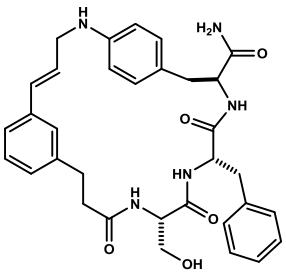
Following general procedure C, the corresponding compound was isolated by preparative HPLC (Waters XbridgeRP18 20x250 mm) using a gradient of 25-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (12 mg, 0.017mmol, 77%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 8.91 (br. s, J = Hz, 2H), 8.48 (d, J = 7 Hz, 1H), 8.09 (d, J = 8.2 Hz, 1H), 7.74 (dd, J = 6.6, 5.3 Hz, 1H), 7.68 (d, J = 8.1 Hz, 1H), 7.35-7.39 (m, 2H), 7.27 (t, J = 7.9 Hz, 1H), 7.15 (br. d, J = 7.9 Hz, 1H), 7.02 (br. s, J = Hz, 1H), 6.93-6.97 (m, 3H), 6.59 (d, J = 8.6 Hz, 2H), 6.52 (br. d, J = 15.7 Hz, 1H), 6.05 (dt, J = 15.4, 7.7 Hz, 1H), 4.3 (ddd, J = 8.3, 8.3, 5.3 Hz, 1H), 4.25 (ddd, J = 8.8, 8.8, 4.6 Hz, 1H), 4.01-4.07 (m, 1H), 3.71-3.79 (m, 1H), 3.52-3.64 (m, 2H), 3 (ddd, J = 14.7, 14.7, 7.7 Hz, 1H), 2.75-2.89 (m, 4H), 2.65 (dd, J = 13.8, 8.6 Hz, 1H), 2.40-2.47 (m, 1H), 2.35-2.39 (m, 1H), 2.25-2.34 (m, 2H), 2.04 (ddd, J = 13.8, 12.2, 6.9 Hz, 1H), 1.98 (s, 3H), 1.79-1.87 (m, 1H), 1.63-1.72 (m, 1H), 1.30-1.39 (m, 1H), 1.10-1.25 (m, 3H), 0.95 (d, J = 6.9 Hz, 3H), 0.91 (d, J = 6.7 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 172.6, 171.1, 170.6, 170.4, 166.0, 155.9, 141.1, 138.5, 134.5, 130.2, 129.3, 129.0, 128.4, 127.6, 122.0, 117.3, 114.8, 62.0, 53.9, 53.5, 51.6, 48.6, 36.6, 36.0, 34.8, 32.0, 30.6, 30.0, 29.1, 28.4, 27.0, 18.2, 17.9. MS (ESI) Calculated for $C_{36}H_{50}N_6O_6S$ $[M+H]^+$: 695.4, found 695.4

Cyclic-Orn-Thr-Try (35):

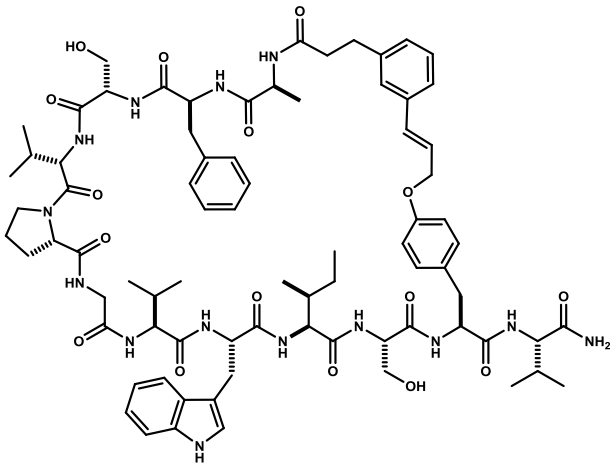


Following general procedure D, the corresponding compound was isolated by preparative HPLC (Waters Xbridge RP18 20x250 mm) using a gradient of 10-70% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (22 mg, 0.033mmol, 80%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 7.90 (d, J = 8.3 Hz, 1H), 7.90 (d, J = 8.3 Hz, 1H), 7.64 (d, J = 7.8 Hz, 1H), 7.53 (br s, 3H), 7.37 (s, 1H), 7.20-7.22 (m, 2H), 7.41 (br s, 1H), 7.19 (br s, 1H), 7.13 (d, J = 8.6 Hz, 2H), 7.04-7.08 (m, 1H), 6.85 (d, J = 8.6 Hz, 2H), 6.66 (d, J = 15.9 Hz, 1H), 6.46 (dt, J = 15.9, 5.8 Hz, 1H), 4.78 (d, J = 5.8 Hz, 2H), 4.34 (ddd, J = 10.6, 8.3, 2.8 Hz, 1H), 4.21 (ddd, J = 8.3, 8.1, 5.3 Hz, 1H), 4.14 (dd, J = 7.8, 5.2 Hz, 1H), 3.94 (tdd, J = 6.3, 5.9, 5.2 Hz, 1H), 2.88 (ddd, J = 14.7, 6.8, 4.5 Hz, 1H), 2.82 (ddd, J = 14.7, 10.1, 4.1 Hz, 1H), 3.00 (dd, J = 14.2, 2.8 Hz, 1H), 2.74 (dd, J = 14.2, 10.6 Hz, 1H), 2.69 (14.5, 10.1, 4.5 Hz, 1H), 2.48-2.55 (m, 2H) , 2.37 (ddd, J = 14.5, 6.8, 4.1 Hz, 1H), 1.31-1.39 (m, 1H), 1.06-1.20 (m, 3H), 1.01 (d, J = 6.3 Hz, 3H).^{13}C NMR (DMSO-d_6, 125 MHz): δ 172.9, 171.1, 170.7, 169.3, 156.4, 140.9, 135.8, 132.8, 129.9, 129.6, 128.4, 128.2, 125.0, 124.9, 124.2, 114.4, 67.7, 65.6, 57.8, 53.8, 51.0, 37.8, 35.7, 34.4, 29.9, 29.4, 22.5, 19.1.
MS (ESI) Calculated for $C_{30}H_{39}N_5O_6$ $[M+H]^+$: 566.3, found 566.2.

Cyclic-Ser-Phe-Phe(4-NH_2) (37):



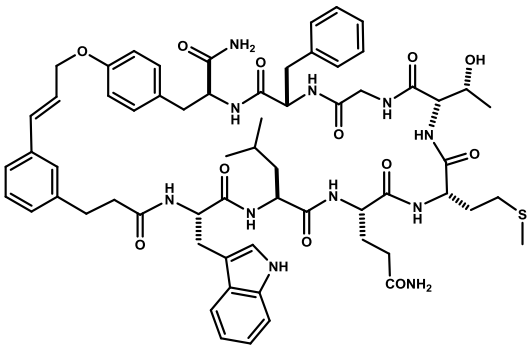
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (13 mg, 0.023 mmol, 72%). ^{1}H NMR (DMSO-d_6, 500 MHz): δ 7.99 (d, J = 8.7 Hz, 1H), 7.77 (d, J = 7.8 Hz, 1H), 7.71 (d, J = 7.6 Hz, 1H), 7.10-7.25 (m, 8H), 7.08 (br s, 1H), 6.96-7.02 (m, 2H), 6.66 (br s, 1H), 6.45 (d, J = 15.7 Hz, 1H), 6.16 (dt, J = 15.9, 5.8 Hz, 1H), 4.78 (ddd, J = 8.2, 8.2, 4.9 Hz, 1H), 4.31 (ddd, J = 11.3, 8.6, 2.9 Hz, 1H), 4.09 (ddd, J = 6.2, 6.2, 6.2 Hz, 1H), 3.88 (d, J = 4.9 Hz, 2H), 3.1-3.2 (m, 2H), 3.00 (dd, J = 13.8, 4.8 Hz, 1H), 2.84 (dd, J = 14.5, 2.6 Hz, 1H), 2.67-2.78 (m, 3H), 2.48-2.57 (m, 1H), 2.27-2.35 (m, 1H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 173.6, 172.1, 171.0, 170.2, 141.6, 138.0, 136.7, 130.1, 129.8, 128.7, 128.5, 128.4, 126.7, 126.2, 124.4, 62.3, 54.9, 54.4, 54.1, 37.5, 36.9, 35.8, 31.0. MS (ESI) Calculated for $C_{33}H_{37}N_5O_5$ $[M+H]^+$: 584.3, found 584.3.



Cyclic-Ala-Phe-Ser-Val-Pro-Gly-Val-Trp-Ile-Ser-Tyr-Val (38):

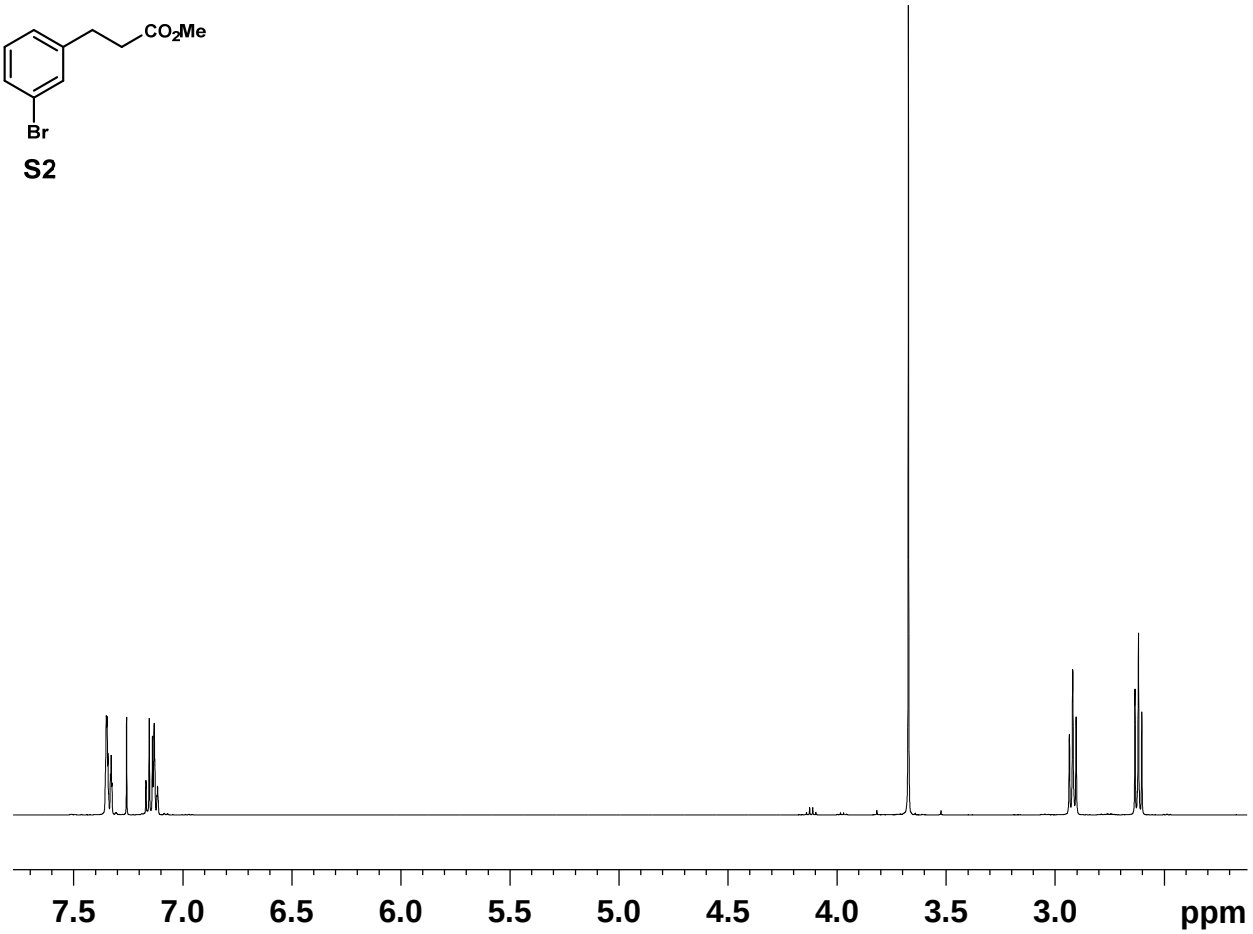
Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (10 mg, 0.007mmol, 66%).^{1}H NMR (DMSO-d_6, 600 MHz): δ 10.67 (s, 1H), 8.24 (dd, J = 5.87 Hz, 1H), 8.09 (dd, J = 7.7 Hz, 1H), 8.02-8.08 (m, 3H), 8.01 (d, J = 7.9 Hz, 1H), 7.91 (d, J = 7.4 Hz, 1H), 7.77 (d, J = 8.1 Hz, 1H), 7.69-7.75 (m, 2H), 7.56-7.61 (m, 1H), 7.49-7.55 (m, 2H), 7.38 (d, J = 8.7 Hz, 1H), 7.31 (s, 1H), 7.23-7.28 (m, 3H), 7.13-7.22 (m, 5H), 7.10-7.13 (m, 3H), 7.05-7.09 (m, 3H), 6.99 (dd, J = 7.6, 7.6 Hz, 1H), 6.91 (dd, J = 7.5, 7.5 Hz, 1H), 6.78 (d, J = 8.3 Hz, 2H), 6.65 (d, J = 15.9 Hz, 1H), 6.42 (dt, J = 15.9, 5.8 Hz, 1H), 4.58 (d, J = 5.5 Hz, 2H), 4.53 (ddd, J = 8.5, 8.5, 5.4 Hz, 1H), 4.44-4.50 (m, 2H), 4.27-4.34 (m, 3H), 4.25 (dd, J = 7.6, 5.5 Hz, 1H), 4.14-4.20 (m, 2H), 4.05-4.13 (m, 3H), 3.75 (dd, J = 16.7, 6.1 Hz, 1H), 3.62-6.72 (m, 1H), 3.46-3.60 (m, 4H), 3.01-3.07 (m, 1H), 2.98 (dd, J = 13.7, 3.0 Hz, 1H), 2.87 (dd, J = 15.1, 9.6 Hz, 1H), 2.32-2.43 (m, 2H), 1.85-2.03 (m, 5H), 1.70-1.79 (m, 2H), 1.55-1.63 (m, 1H), 1.28-1.37 (m, 1H), 1.62 (d, J = 7 Hz, 3H), 0.94-1.0 (m, 1H), 0.85 (d, J = 6.6 Hz, 3H), 0.78-0.83 (m, 9H), 0.73 (d, J = 6.4 Hz, 3H), 0.63-0.72 (m, 6H), 0.67 (d, J = 6.8 Hz, 3H).^{13}C NMR (DMSO-d_6, 150 MHz, from HMBC/HSQC): δ173.2, 172.45, 172.4, 172.3, 171.9, 171.4, 171.1, 171.07, 171.02, 170.5, 170, 169.9, 168.9, 157.1, 141.9, 137.9, 136.3, 133.2, 132.3, 131.6, 130.3, 129.1, 129, 127.9, 127.85, 127.8, 126.1, 126, 124.8, 124.1, 123.5, 120.7, 118.2, 118, 114.2, 111.1, 110.3, 67.9, 61.6, 61.5, 59.6, 57.9, 57.6, 56.8, 55.6, 54.9, 53.8, 53.6, 53.3, 48.7, 47, 42.3, 37.2, 37.1, 37, 36.4, 36.1, 30.6, 30.2, 29.3, 27.3, 24.5, 24.2, 22.1, 19.3, 19.1, 17.8, 17.5, 15.2, 11.1. MS (ESI) Calculated for $C_{78}H_{104}N_{14}O_{16}[M+H]^+$: 1493.8, found 1493.7

Cyclic-Trp-Leu-Gln-Met-Thr-Gly-Phe-Tyr (39):

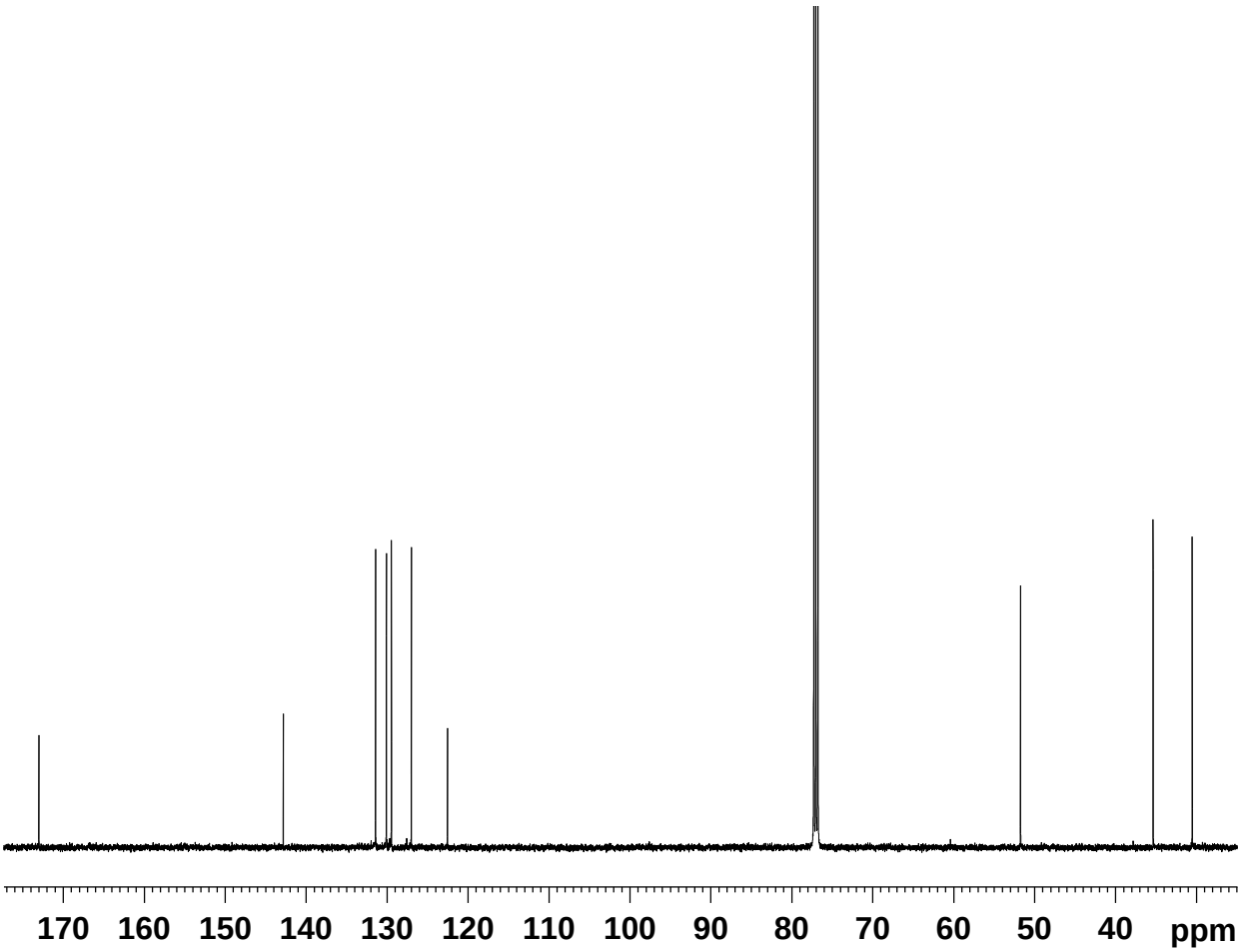


Following general procedure B, the corresponding compound was isolated by preparative HPLC (Waters Sunfire C18 30x150 mm) using a gradient of 35-100% CH_3CN/H_2O with 0.1% TFA. The fractions collected were combined and lyophilized (21 mg, 0.017mmol, 71%).^{1}H NMR (DMSO-d_6, 500 MHz): δ 10.76 (d, J = 1.9 Hz, 1H), 8.11 (d, J = 7.8 Hz, 1H), 8.04-8.09 (m, 2H), 8.02 (d, J = 7.4 Hz, 1H), 7.96 (t, J = 5.4 Hz, 1H), 7.92 (d, J = 7.8 Hz, 1H), 7.81 (d, J = 7.9 Hz, 1H), 7.71 (d, J = 7.9 Hz, 1H), 7.55 (d, J = 7.8 Hz, 1H), 7.3 (d, J = 7.9 Hz, 1H), 7.23-7.27 (m, 3H), 7.17-7.23 (m, 6H), 7.12-7.17 (m, 3H), 7.06-7.10 (m, 2H), 7.01-7.05 (m, 2H), 6.95 (t, J = 7.5 Hz, 1H), 6.86 (d, J = 8.7 Hz, 2H), 6.72 (br. s, J = Hz, 1H), 6.66 (d, J = 15.9 Hz, 1H), 6.43 (dt, J = 15.9, 5.8 Hz, 1H), 4.61 (d, J = 5.4 Hz, 2H), 4.52 (ddd, J = 8.9, 8.9, 4.6 Hz, 1H), 4.45 (ddd, J = 8.4, 8.4, 5.0 Hz, 1H), 4.4 (ddd, J = 8.1, 8.1, 5.0 Hz, 1H), 4.35 (ddd, J = 8.9, 8.9, 4.0 Hz, 1H), 4.13-4.25 (m, 3H), 3.93-3.99 (m, 1H), 3.69 (dd, J = 17.1, 5.7 Hz, 1H), 3.56 (dd, J = 16.8, 5.2 Hz, 1H), 3.1 (dd, J = 14.9, 4.8 Hz, 1H), 2.99 (dd, J = 13.8, 4.2 Hz, 1H), 2.87-2.96 (m, 2H), 2.64-2.78 (m, 4H), 2.31-2.45 (m, 4H), 1.85-1.98 (m, 5H), 1.69-1.83 (m, 2H), 1.00 (d, J = 6.4 Hz, 3H), 0.75-0.86 (m, 6H). ^{13}C NMR (DMSO-d_6, 125 MHz): δ 174.2, 173.4, 172.3, 172.3, 172.1, 171.53, 171.51, 171.3, 170.7, 168.8, 157.3, 142.1, 138.2, 136.6, 136.5, 132.7, 130.7, 130.4, 129.7, 129.1, 128.5, 128.2, 127.8, 126.8, 126.7, 125.4, 124.6, 123.9, 121.3, 118.8, 118.7, 114.7, 111.8, 110.6, 68.4, 67.1, 58.8, 54.6, 54.5, 54.2, 52.9, 52.4, 51.6, 42.3, 41.0, 38.0, 37.2, 37.1, 32.2, 31.9, 31.3, 29.9, 29.2, 27.6, 24.5, 23.6, 22.0, 20.0, 15.0. MS (ESI) Calculated for $C_{63}H_{79}N_{11}O_{12}S$ $[M+H]^+$: 1214.6, found 1214.2.

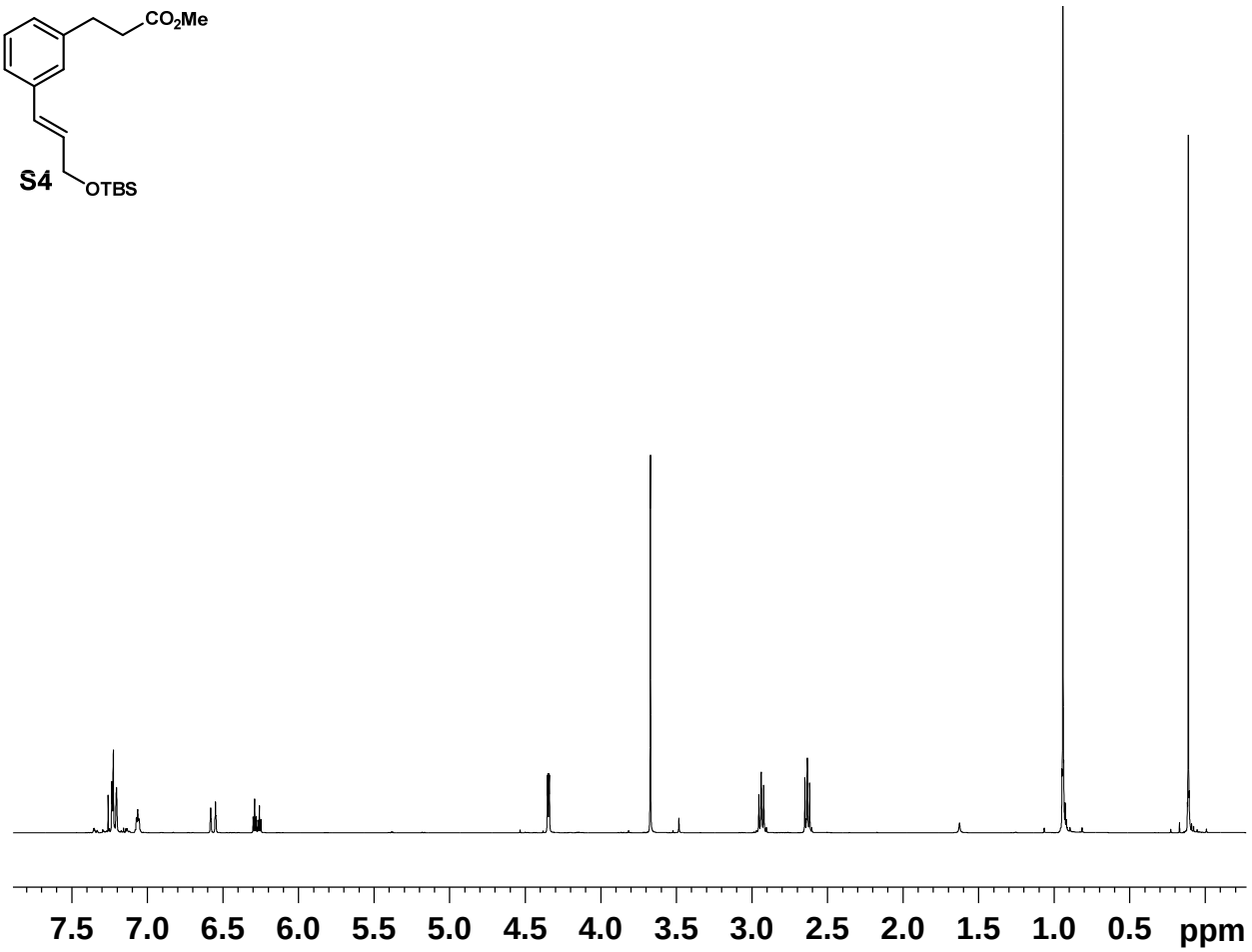
S2



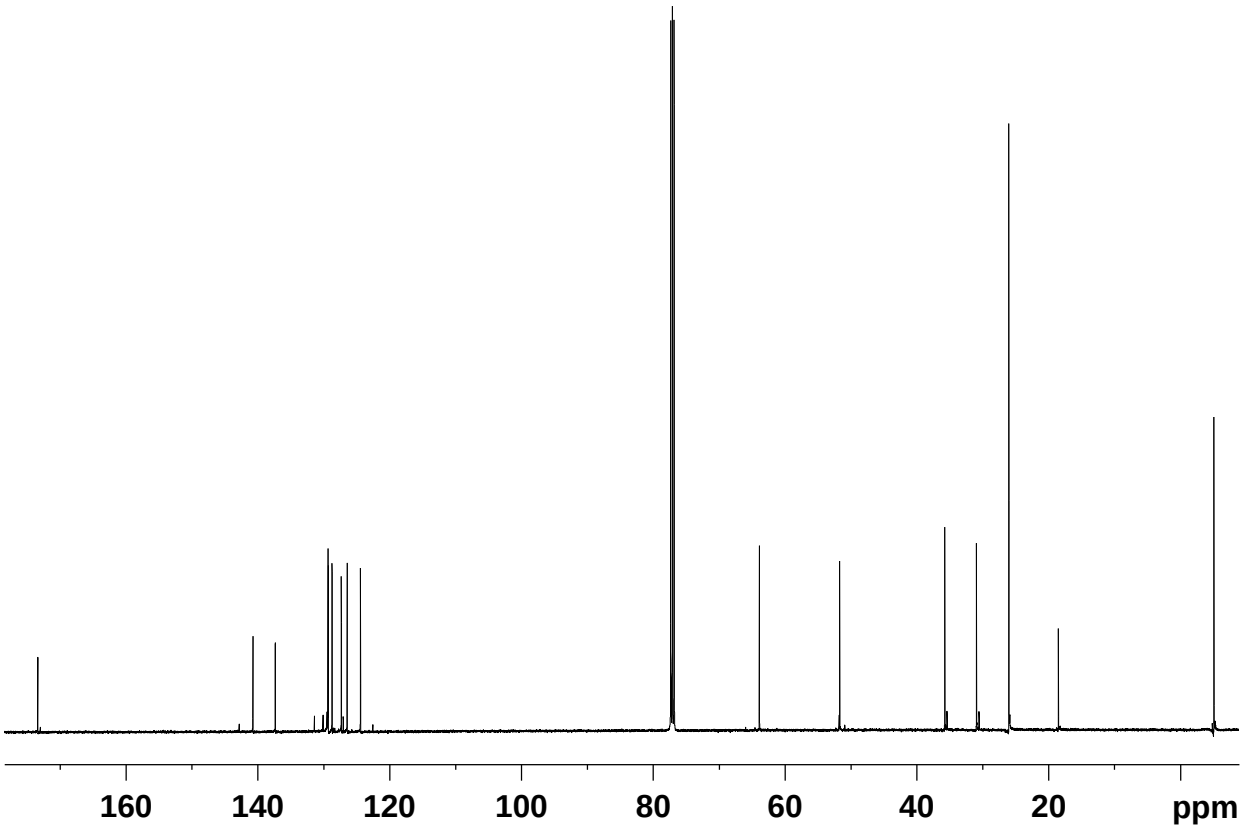

```
Current Data Parameters
NAME            KL-5-56
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130112
Time              15.42
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                17.27
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                 EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



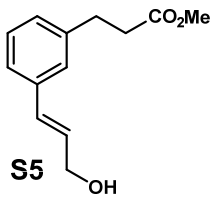

```
Current Data Parameters
NAME            KL-5-56
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130112
Time              15.44
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   22
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW               16.000 usec
DE               18.00 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI              131072
SF          125.7577892 MHz
WDW                 EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

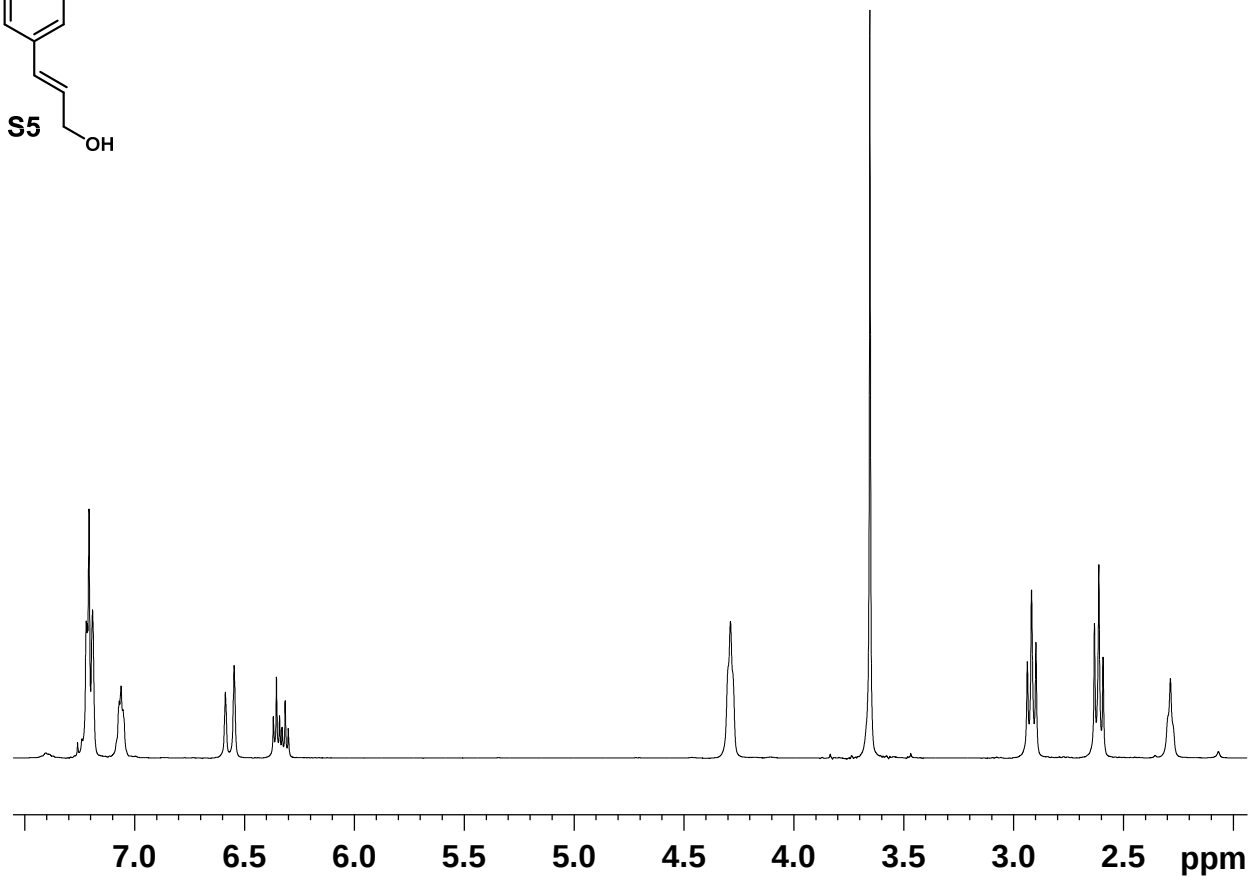



```
Current Data Parameters
NAME           KL-4-117
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20120219
Time              13.45
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES            0.152588 Hz
AQ            3.2767999 sec
RG                   11
DW                50.000 usec
DE                10.00 usec
TE                296.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



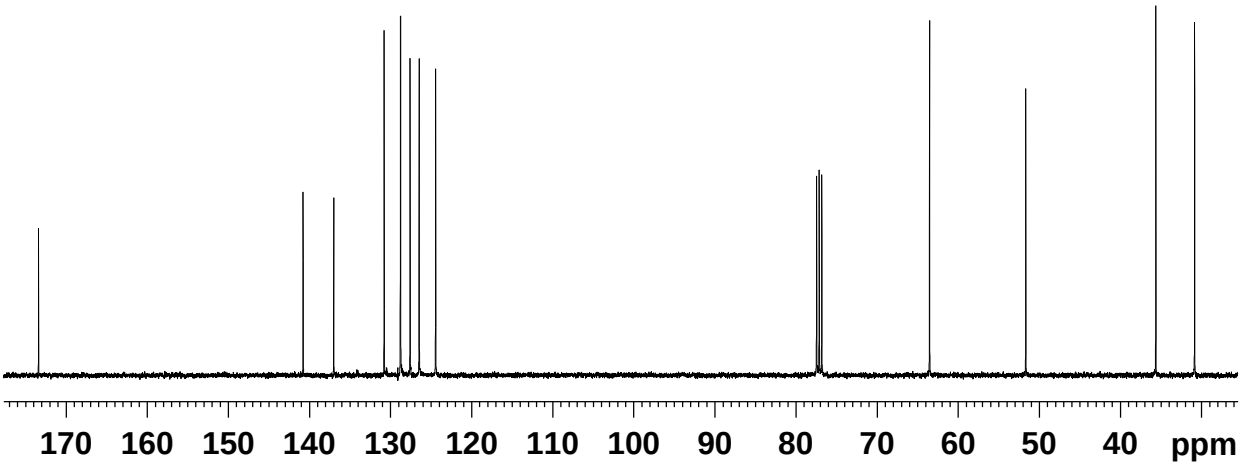

```
Current Data Parameters
NAME           KL-4-117
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

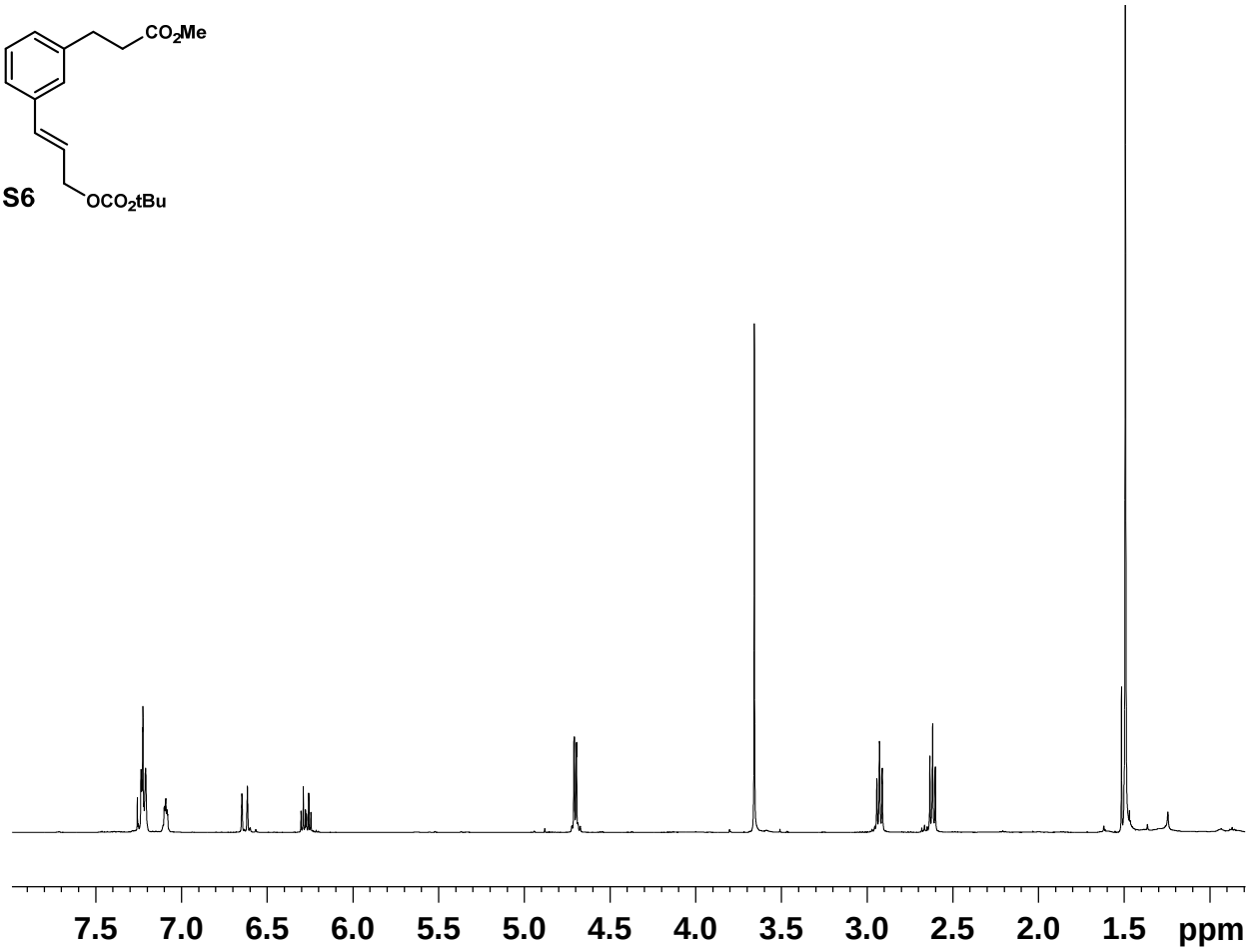




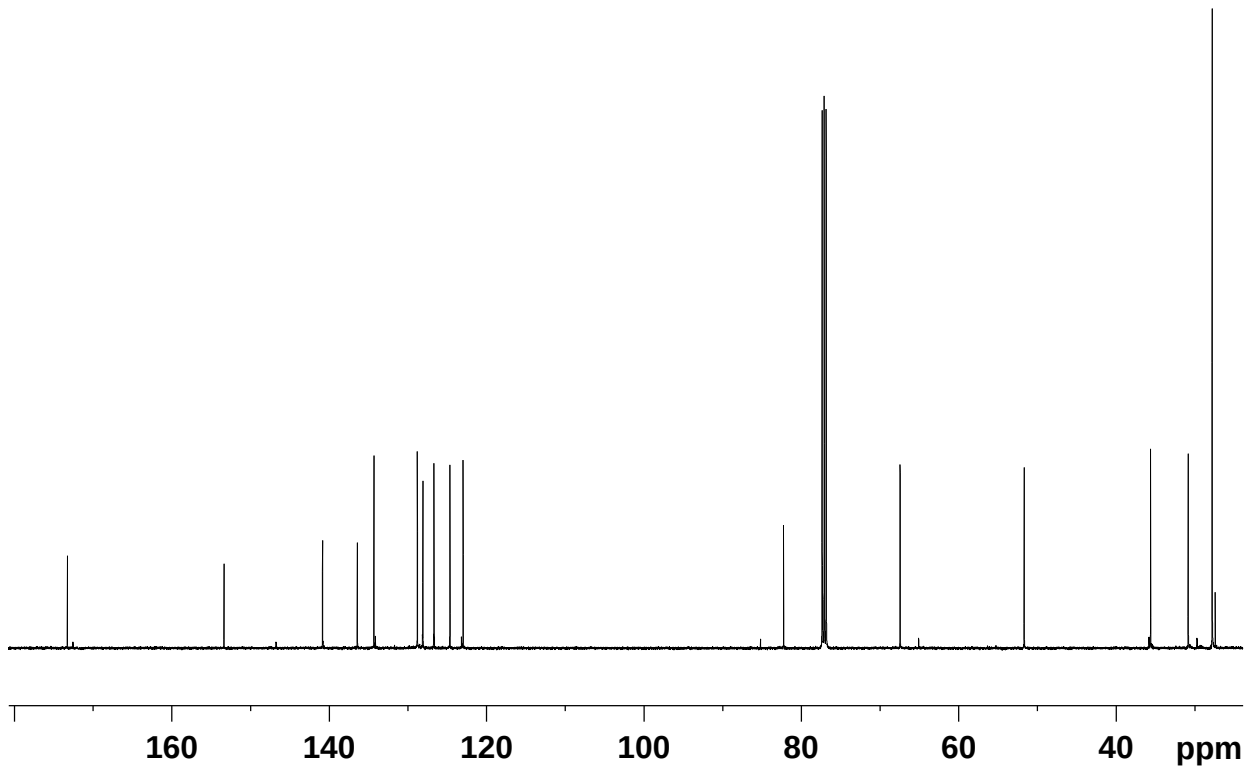

```
Current Data Parameters
NAME     KL-4-122_aftcol
EXPNO                374
PROCNO                 1

F2 - Acquisition Parameters
Date_           20120213
Time               19.53
INSTRUM          arx400
PROBHD   5 mm QNP  1H/1
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                    8
DS                    0
SWH            8064.516 Hz
FIDRES        0.123055 Hz
AQ           4.0632820 sec
RG                  180
DW               62.000 usec
DE                88.57 usec
TE                300.0 K
D1           2.00000000 sec
P1                9.00 usec
SFO1        400.1324008 MHz
NUCLEUS               1H

F2 - Processing parameters
SI                65536
SF           400.1300173 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

```
Current Data Parameters
NAME     KL-4-122_aftcol
EXPNO                375
PROCNO                 1

F2 - Processing parameters
SI                65536
SF           100.6127710 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```



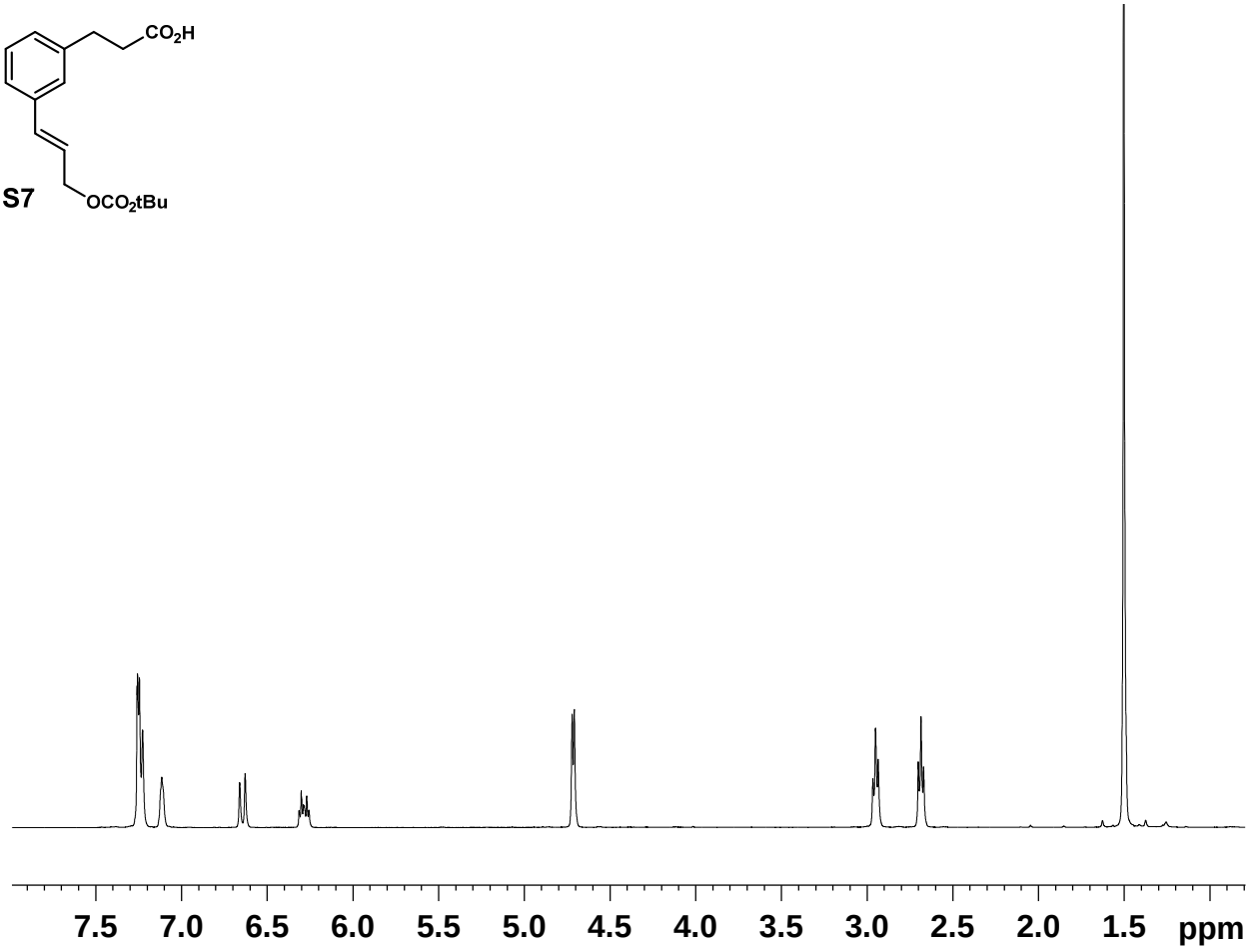



```
Current Data Parameters
NAME           KL-4-125
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20120227
Time              19.53
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES        0.152588 Hz
AQ            3.2767999 sec
RG                29.99
DW               50.000 usec
DE               10.00 usec
TE                296.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

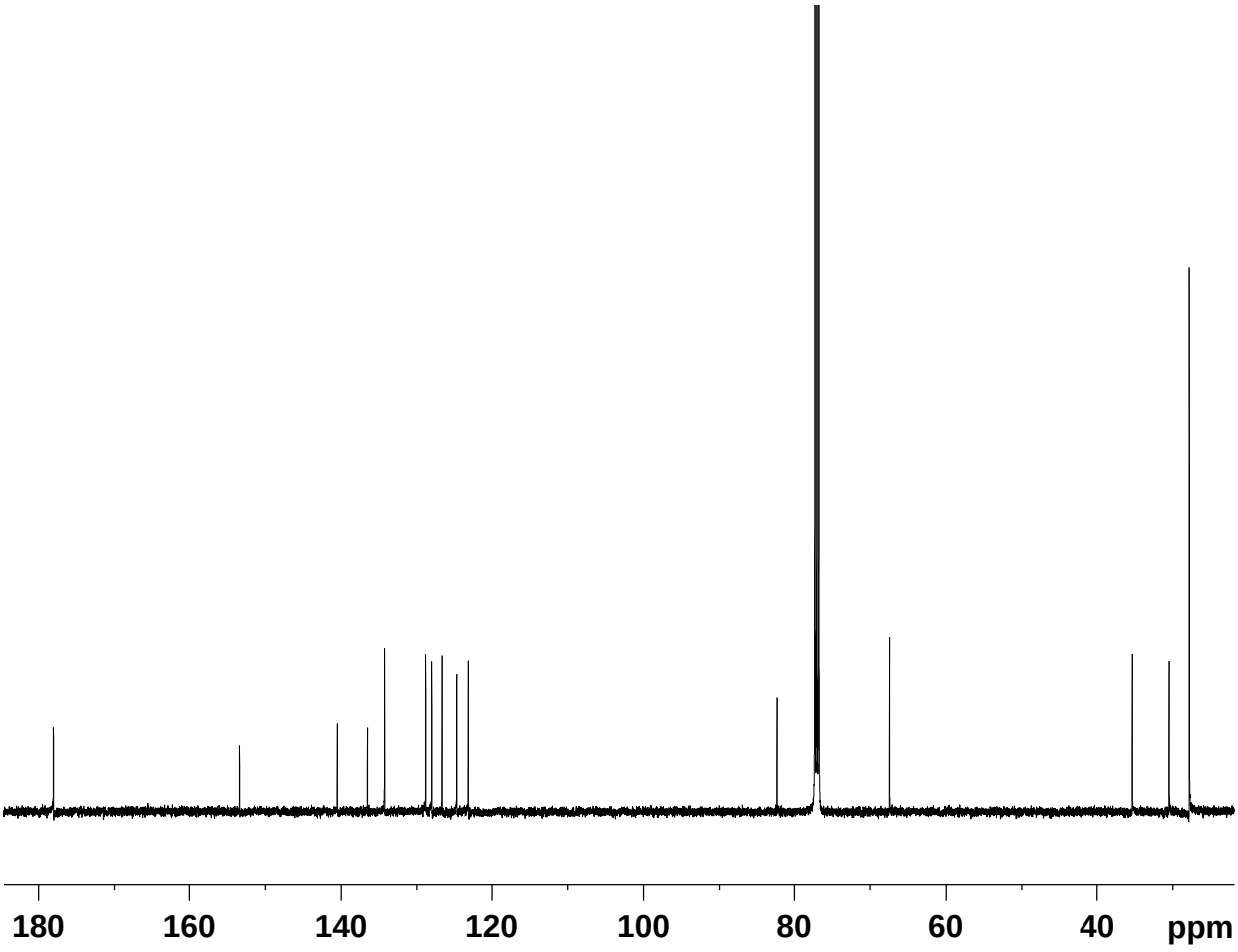



```
Current Data Parameters
NAME           KL-4-125
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

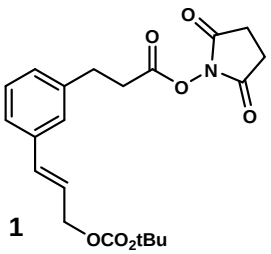
S7



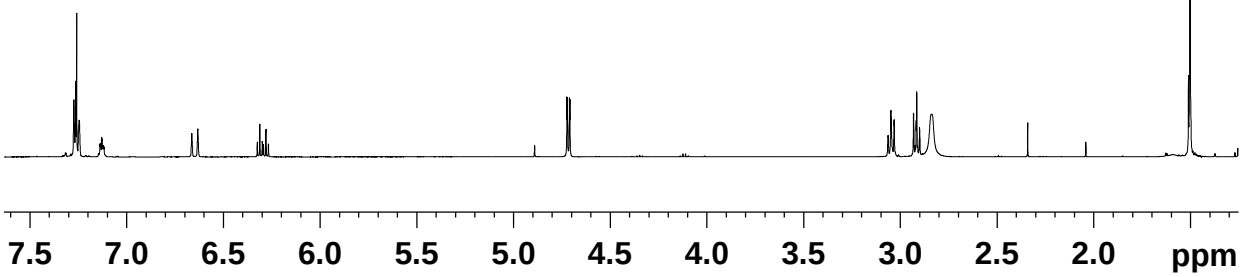

```
Current Data Parameters
NAME            KL-5-60
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130124
Time              11.25
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                   11
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

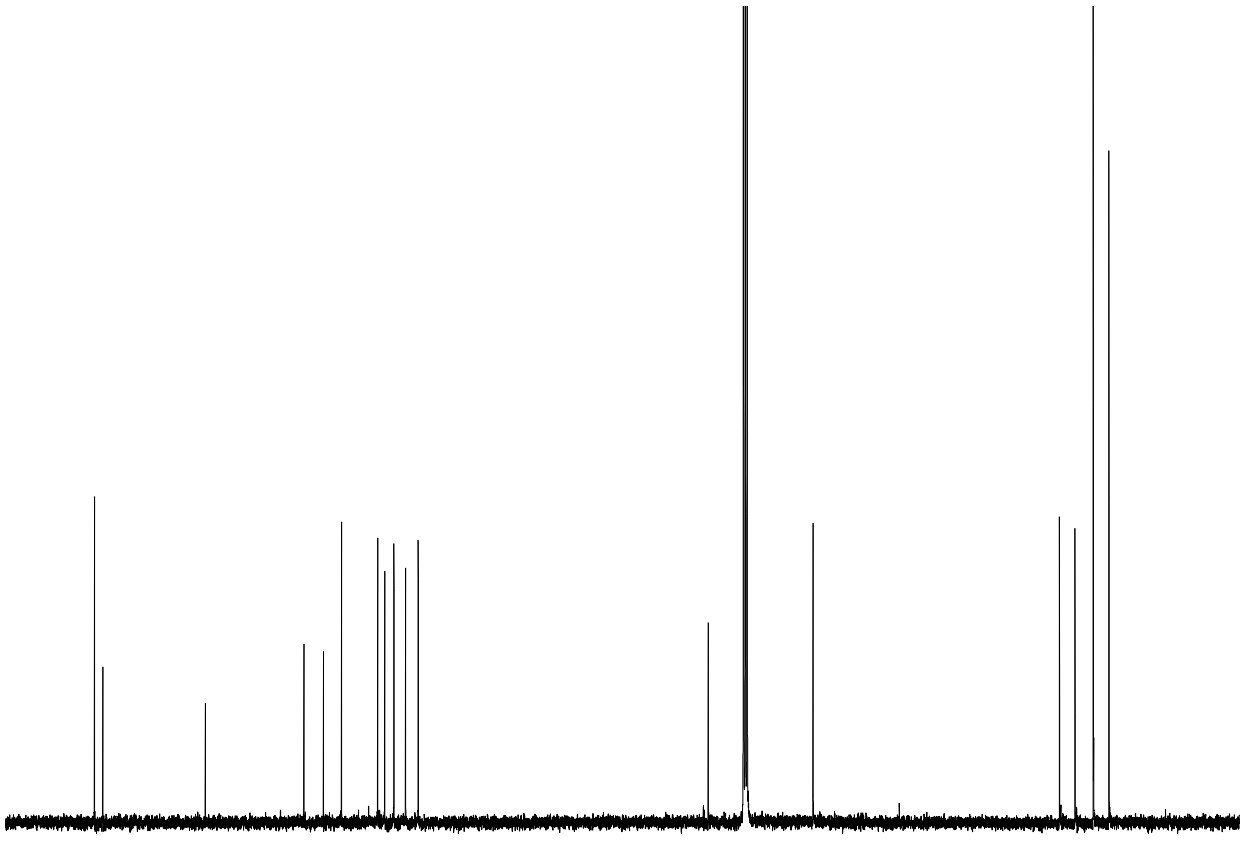



```
Current Data Parameters
NAME            KL-5-60
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130124
Time              11.29
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   32
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE               18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI              131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

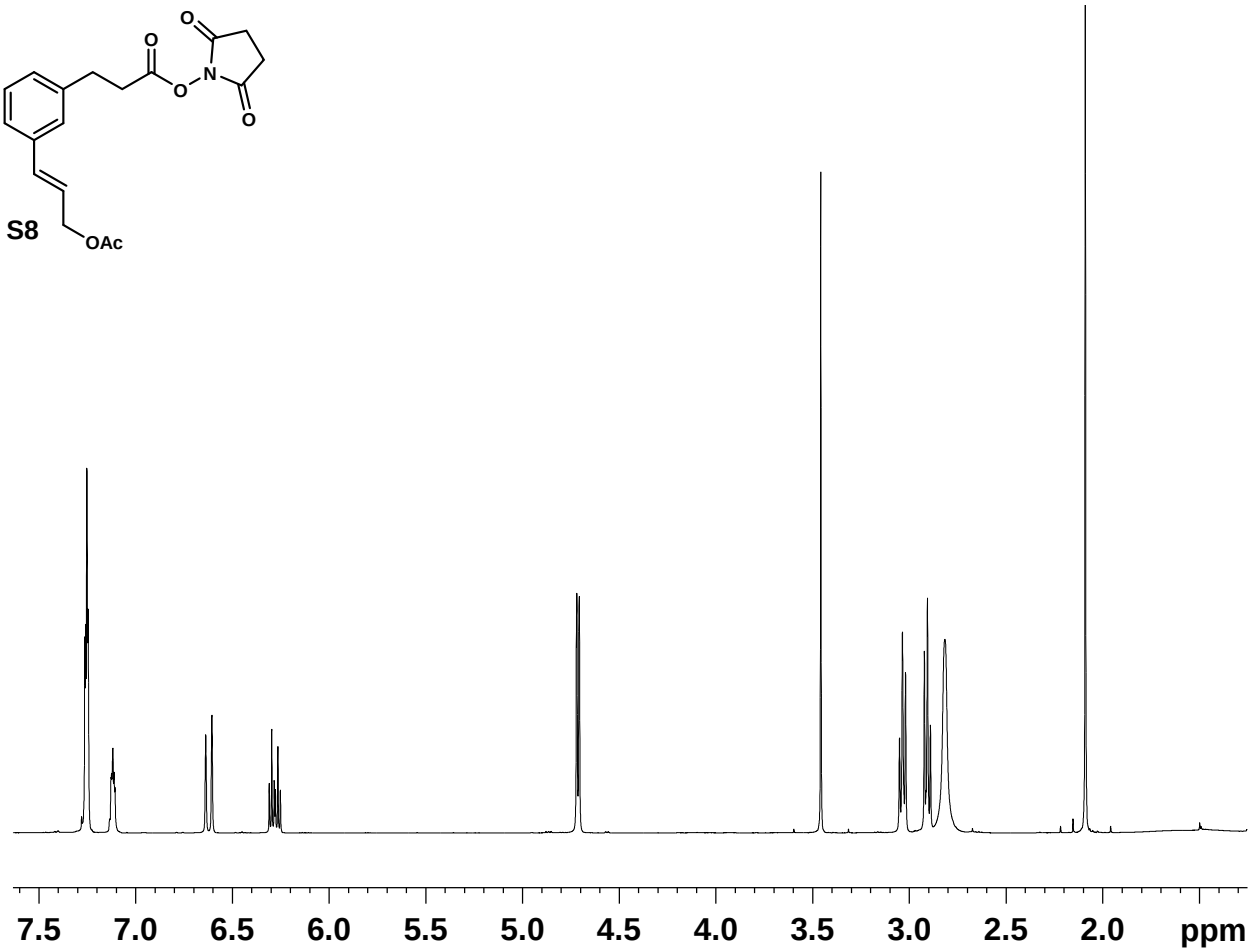



```
Current Data Parameters
NAME            KL-5-55
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130124
Time              15.36
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                   11
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

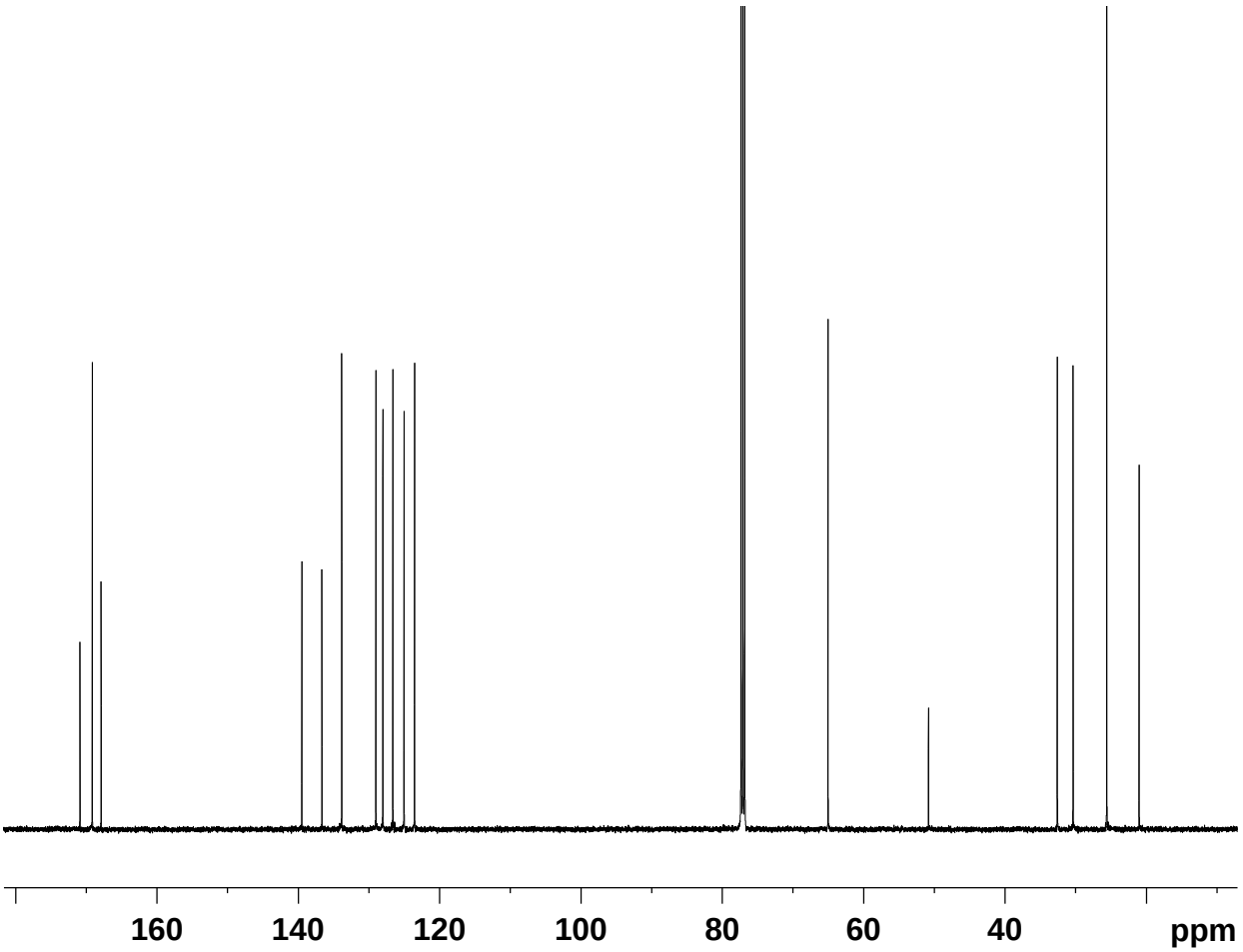





```
Current Data Parameters
NAME            KL-5-55
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130124
Time              15.37
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG         zgpg30
TD                65536
SOLVENT           CDCl3
NS                   31
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW                16.000 usec
DE                18.00 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

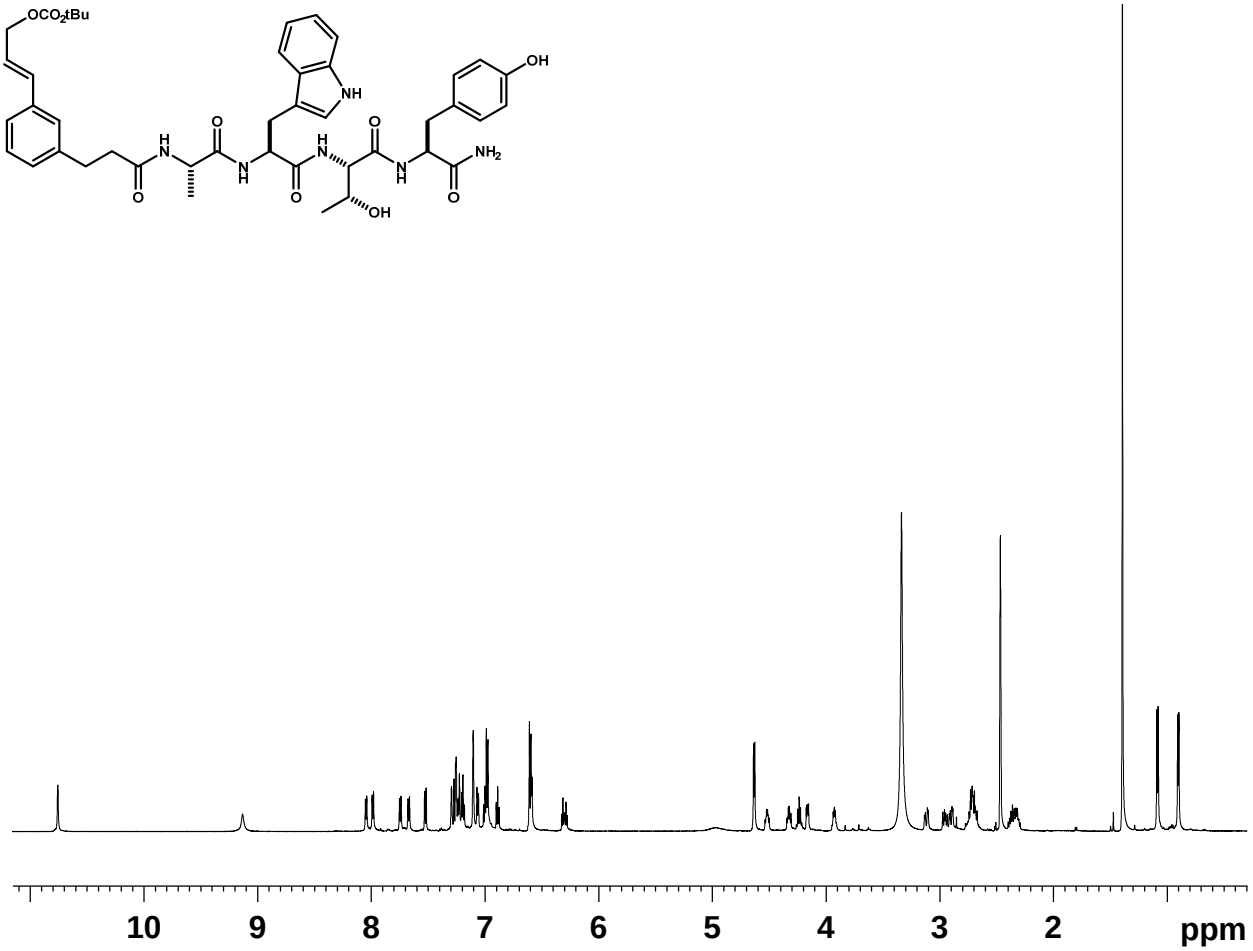



```
Current Data Parameters
NAME              H1_OAc
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130424
Time               12.07
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT            CDCl3
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                    11
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         500.1330008 MHz
NUC1                   1H
P1                 10.00 usec
PLW1         13.50000000 W

F2 - Processing parameters
SI                 65536
SF           500.1300146 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.00
```

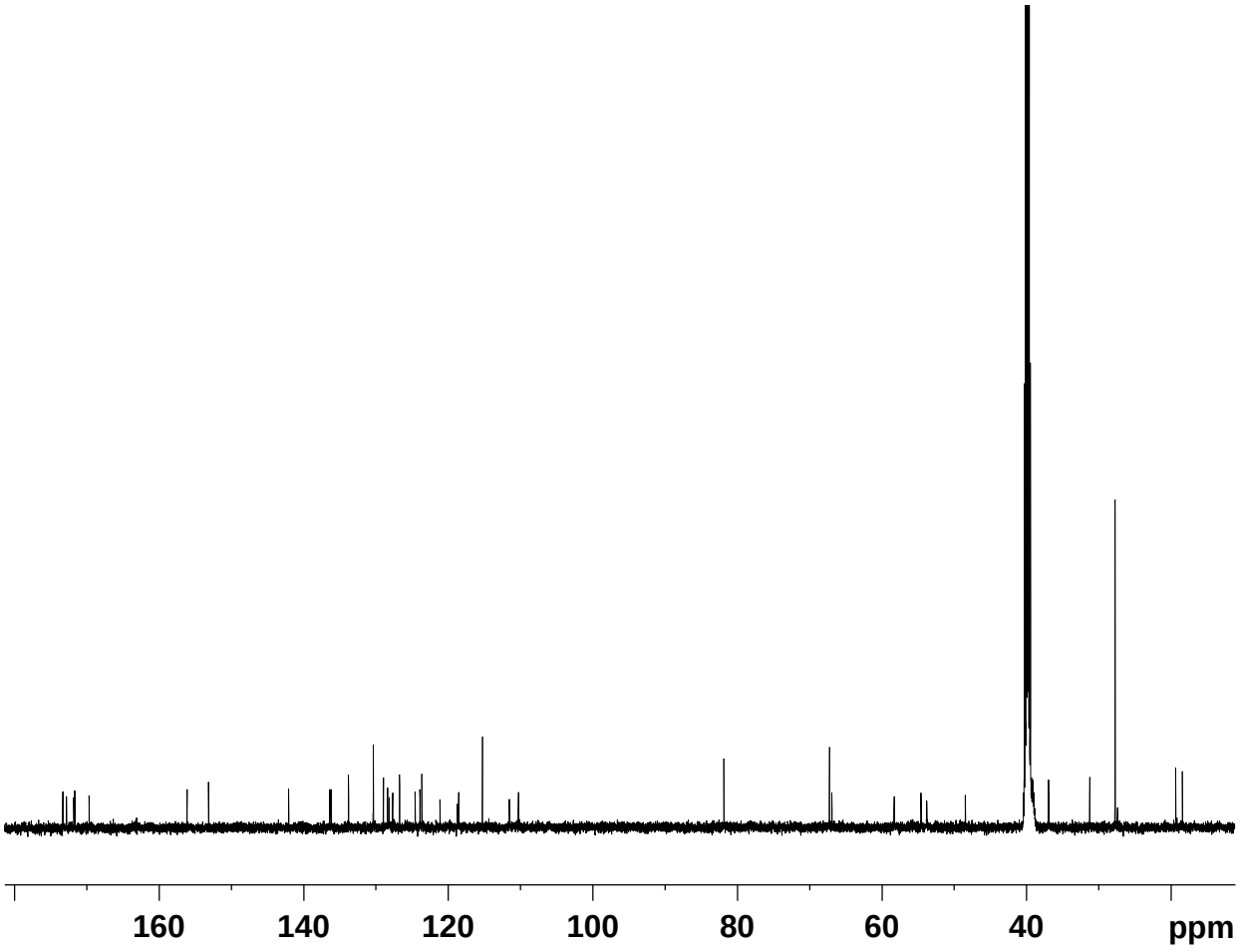



```
Current Data Parameters
NAME              H1_OAc
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130424
Time               12.09
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    31
DS                     2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW                16.000 usec
DE                18.00 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         125.7722511 MHz
NUC1                  13C
P1                 9.63 usec
PLW1         23.00000000 W

======== CHANNEL f2 ========
SFO2         500.1330008 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2         13.50000000 W
PLW12         0.21094000 W
PLW13         0.13500001 W

F2 - Processing parameters
SI                131072
SF           125.7577892 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.00
```

Acyclic-Ala-Trp-Thr-Tyr (2):

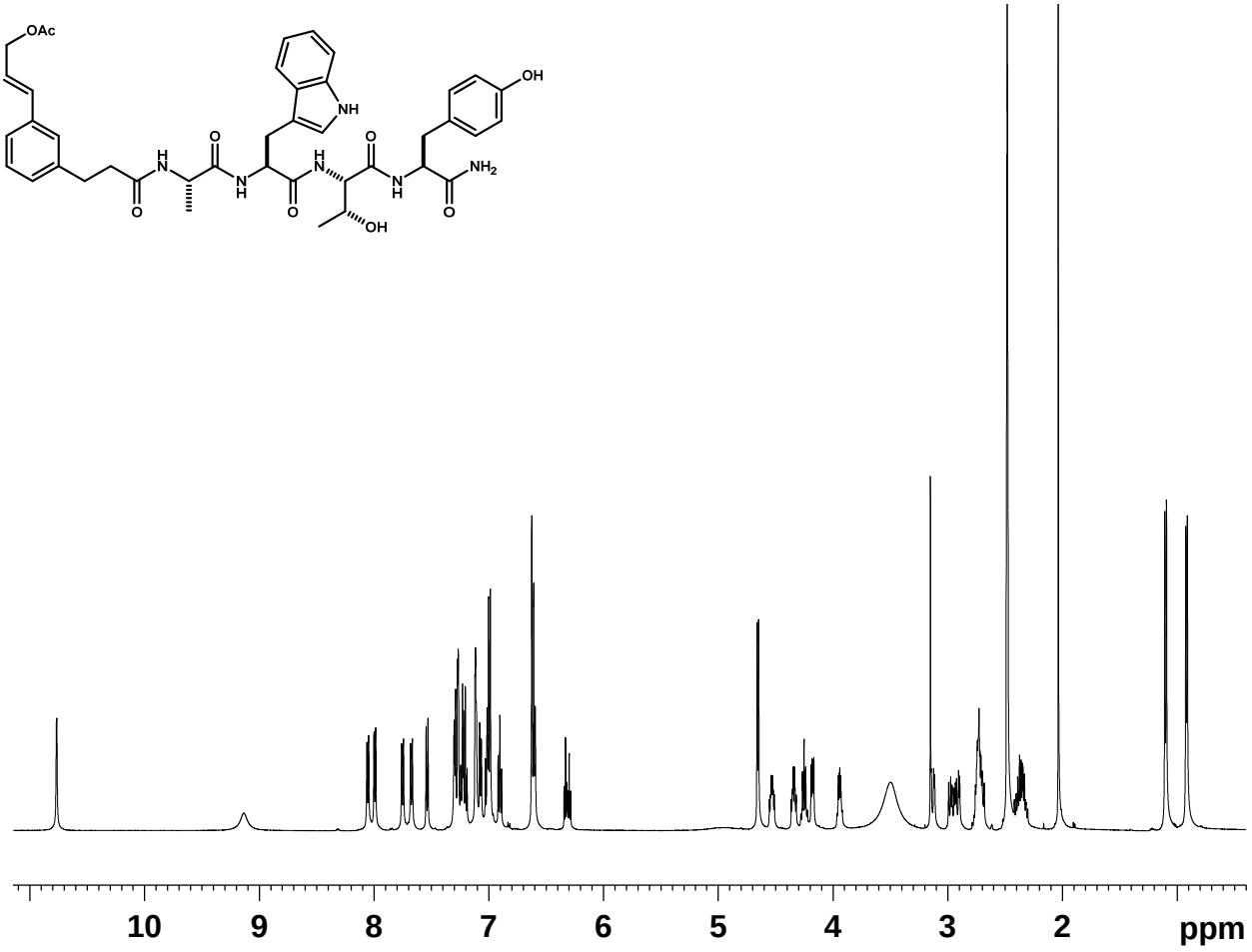



```
Current Data Parameters
NAME            KL-4-38
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20111012
Time              18.07
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                 181
DW              40.400 usec
DE               6.50 usec
TE              295.2 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1               14.00 usec
PL1              -1.00 dB
PL1W       31.62277603 W
SFO1       600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

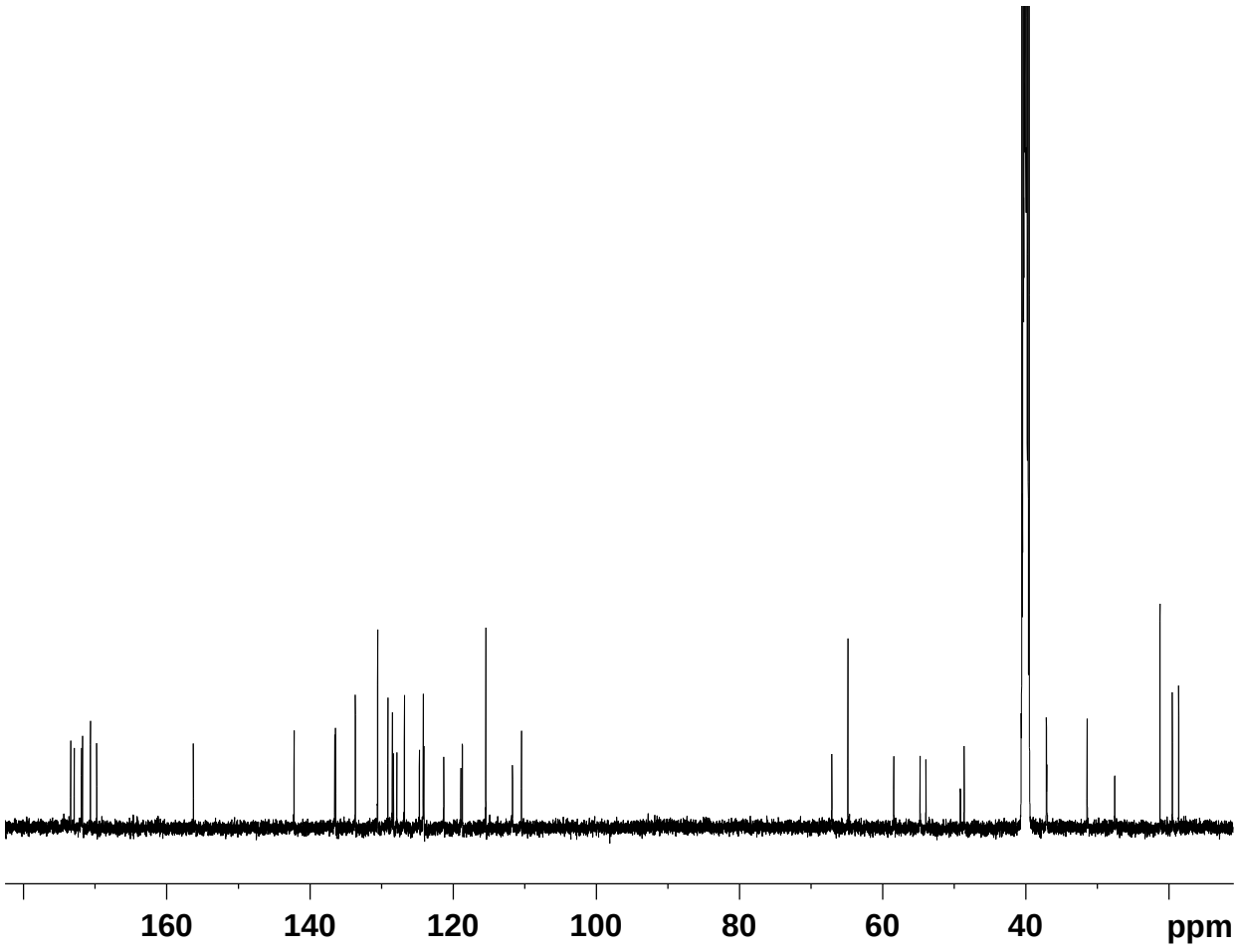



```
Current Data Parameters
NAME            KL-4-38
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ala-Trp-Thr-Tyr (3):

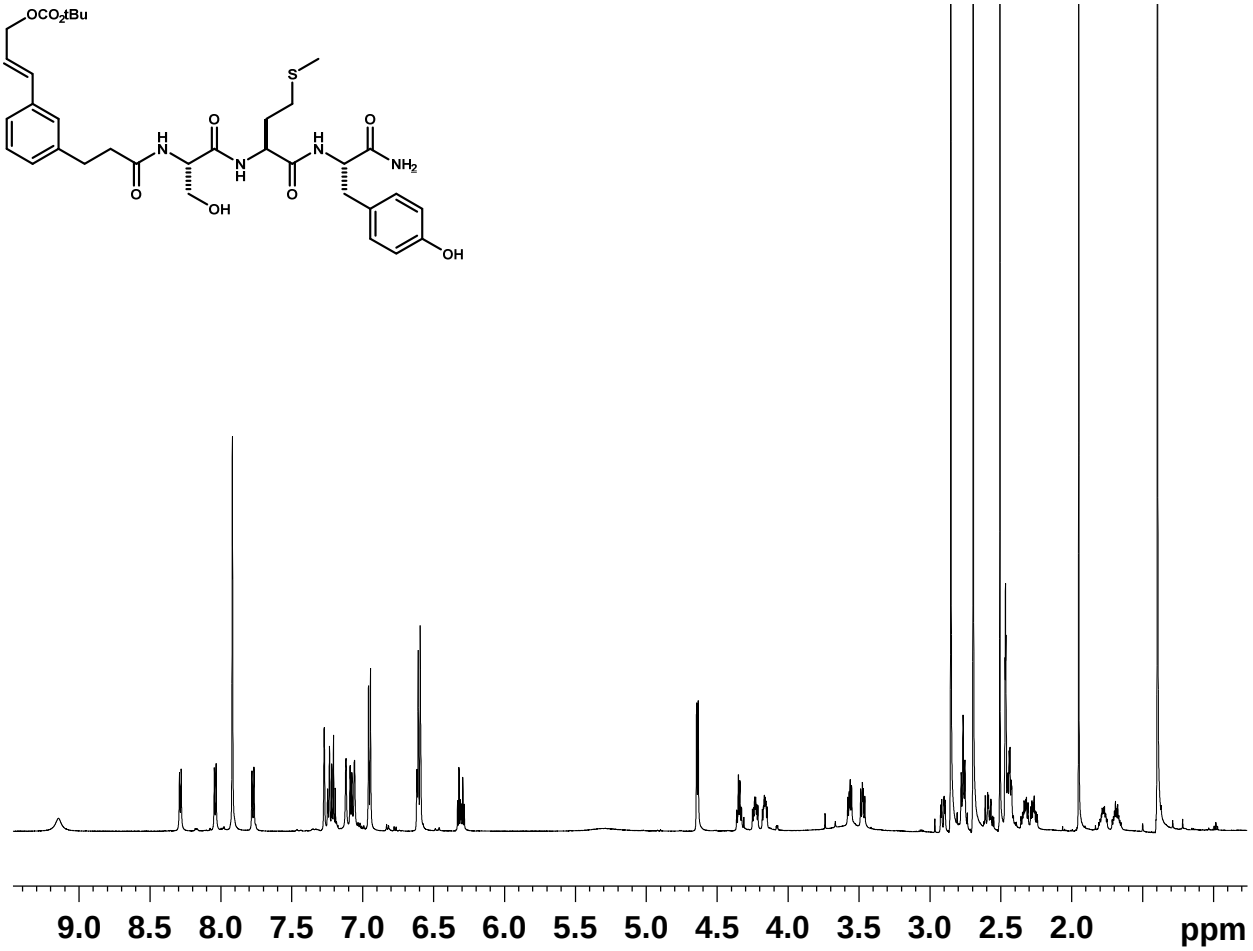



```
Current Data Parameters
NAME          KL-5-144b
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130321
Time              18.13
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                   11
DW               50.000 usec
DE               10.00 usec
TE               298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                 EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

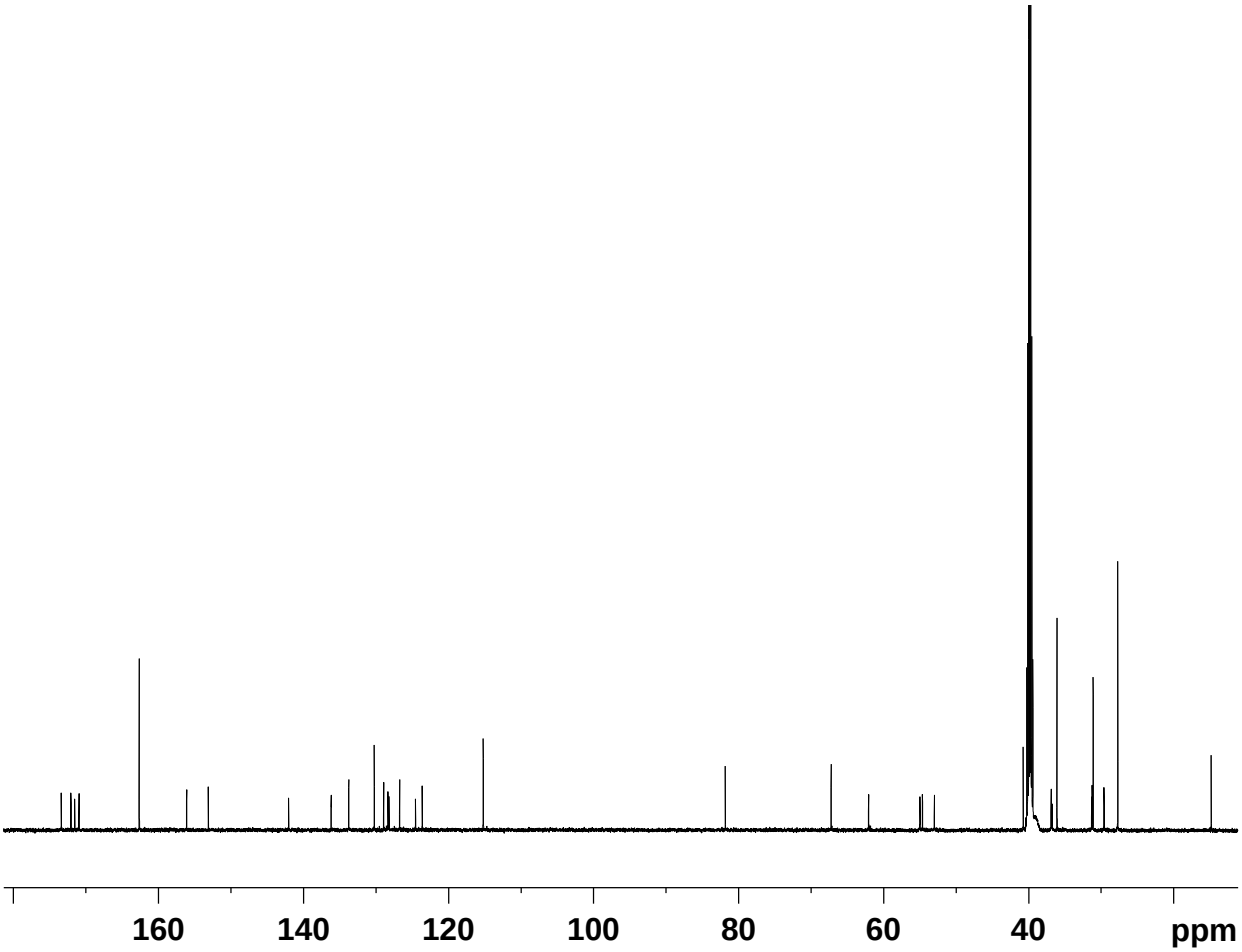



```
Current Data Parameters
NAME          KL-5-144b
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130321
Time              18.16
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                   92
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE               18.00 usec
TE               298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                1H
CPDPRG[2        waltz16
PCPD2            80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI              131072
SF          125.7577892 MHz
WDW                 EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ser-Met-Tyr (S9):



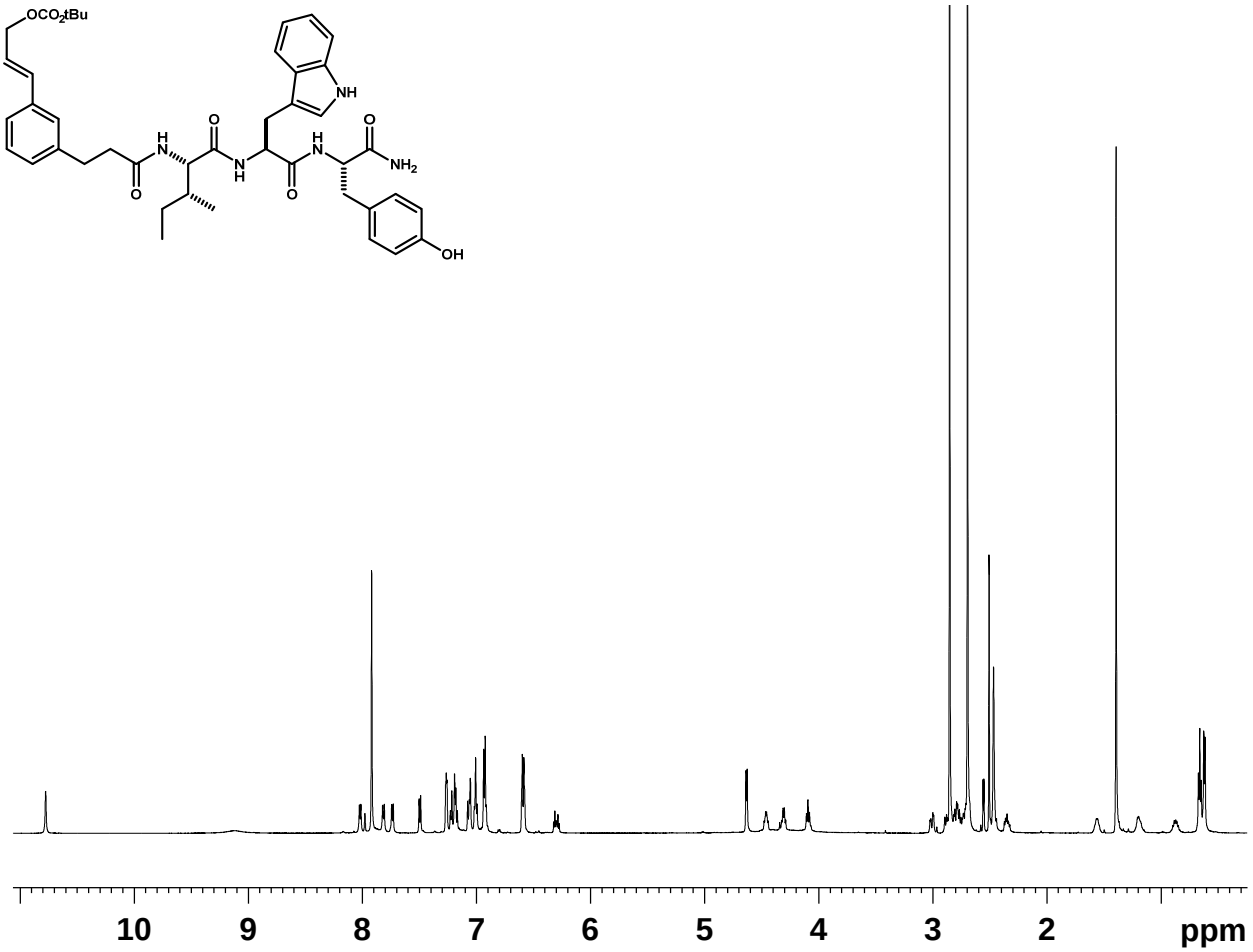

```
Current Data Parameters
NAME         KL-III-288
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110831
Time              15.21
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                 114
DW              40.400 usec
DE               6.50 usec
TE              294.6 K
D1          2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



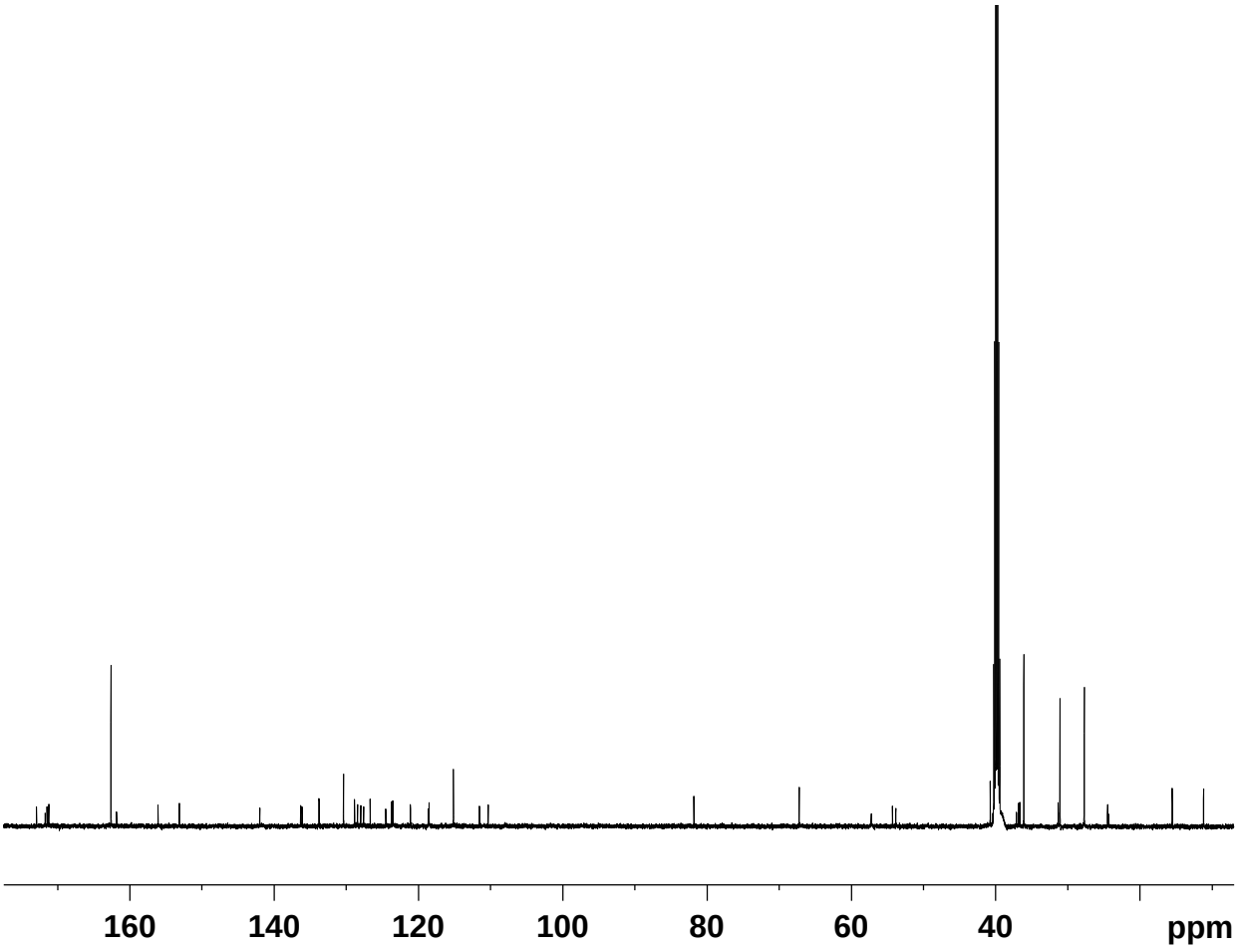

```
Current Data Parameters
NAME         KL-III-288
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ile-Trp-Tyr (S10):

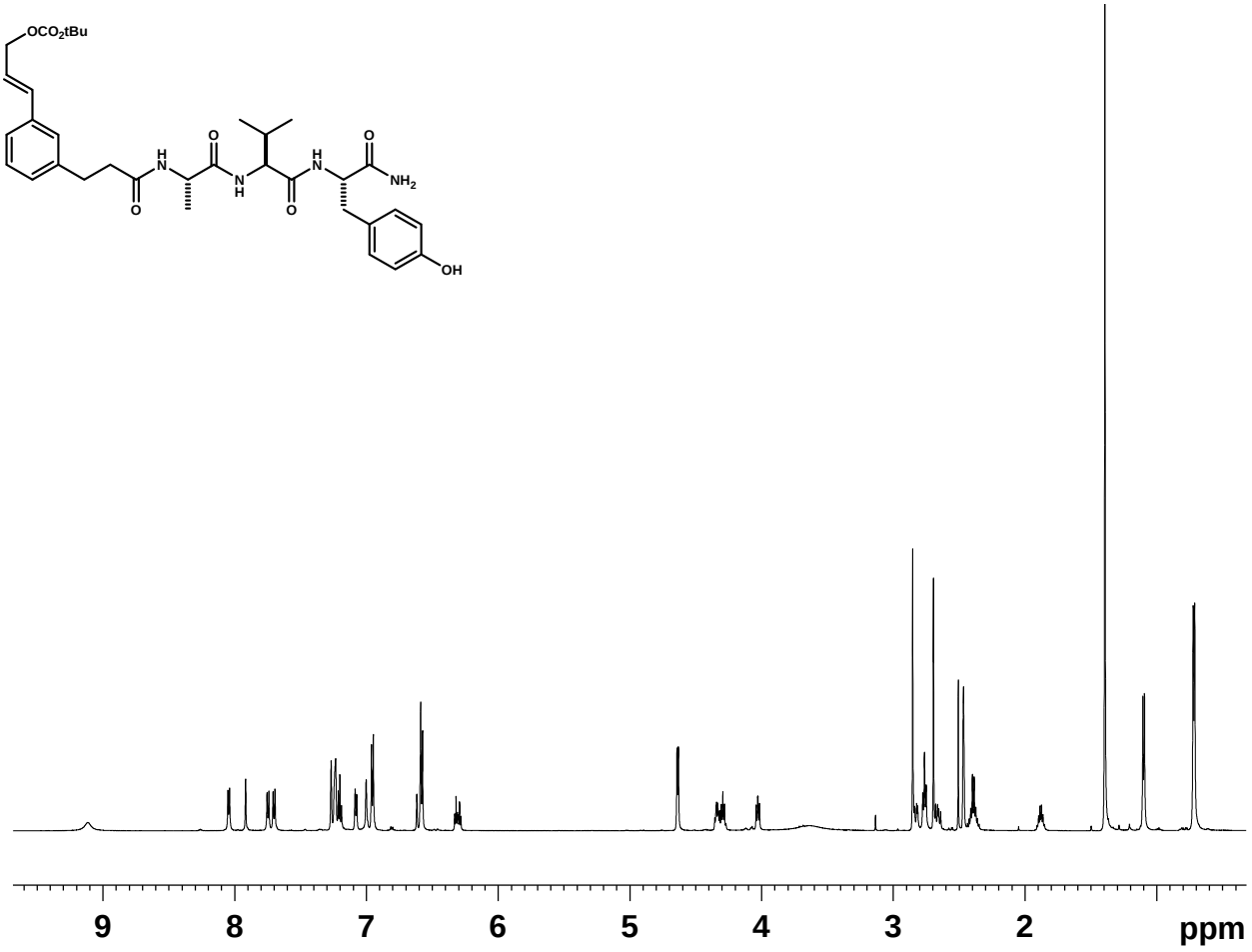

```
Current Data Parameters
NAME         KL-III-287
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110828
Time              18.29
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                90.5
DW               40.400 usec
DE                6.50 usec
TE               294.1 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



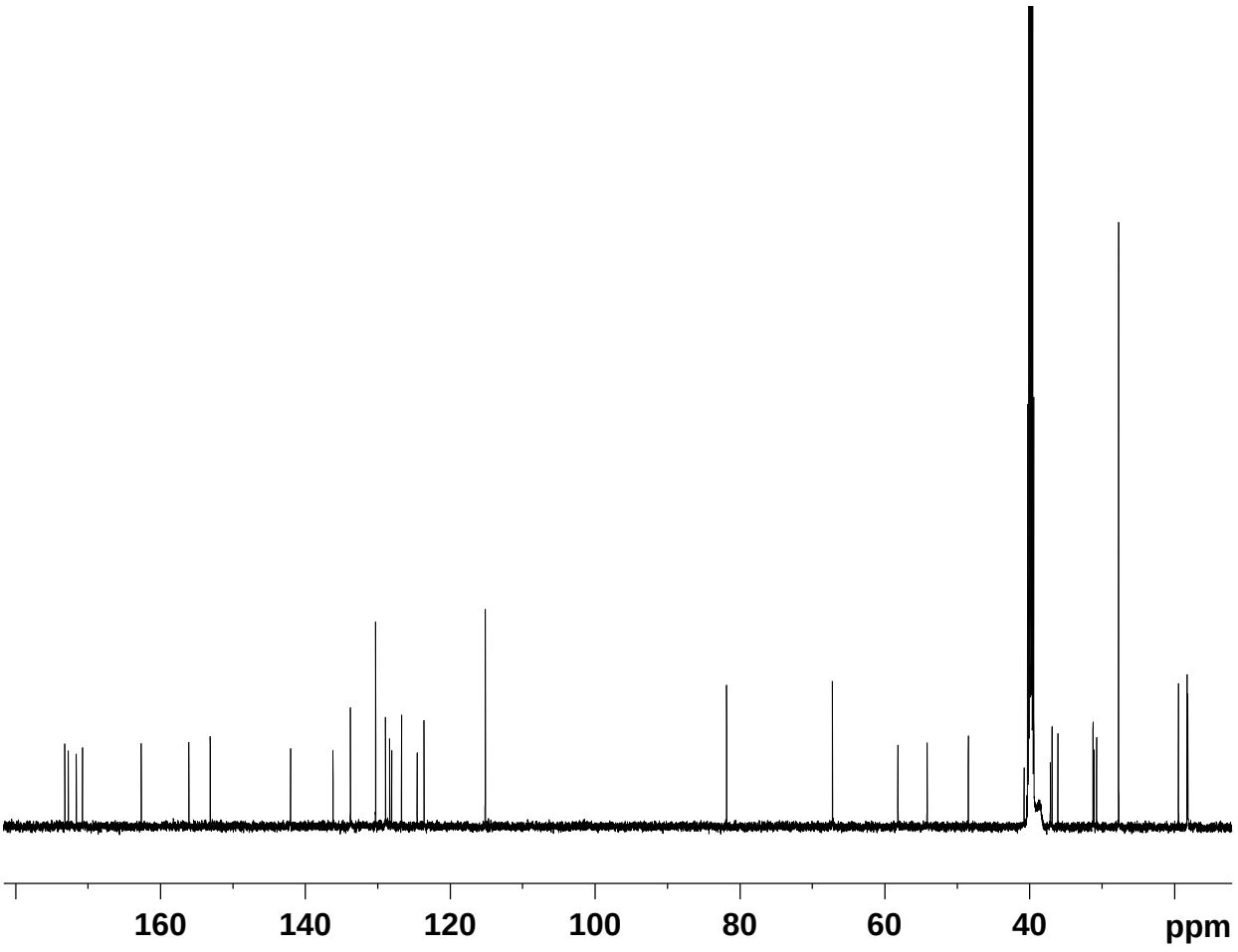

```
Current Data Parameters
NAME         KL-III-287
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```



Acyclic-Ala-Val-Tyr (S11):

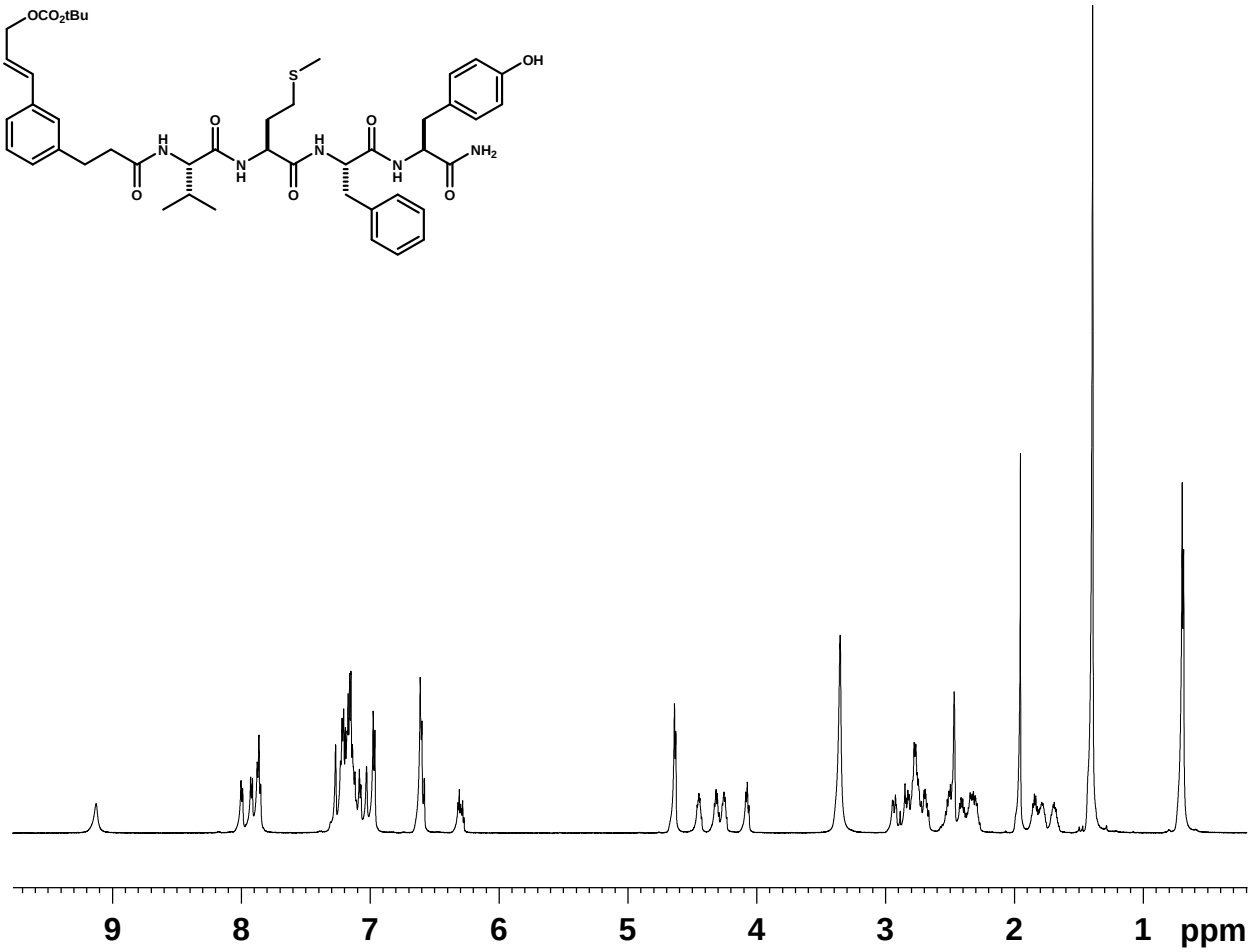



```
Current Data Parameters
NAME         KL-III-286
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110829
Time              13.37
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                 114
DW              40.400 usec
DE               6.50 usec
TE              294.3 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                 1H
P1                14.00 usec
PL1               -1.00 dB
PL1W       31.62277603 W
SFO1       600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

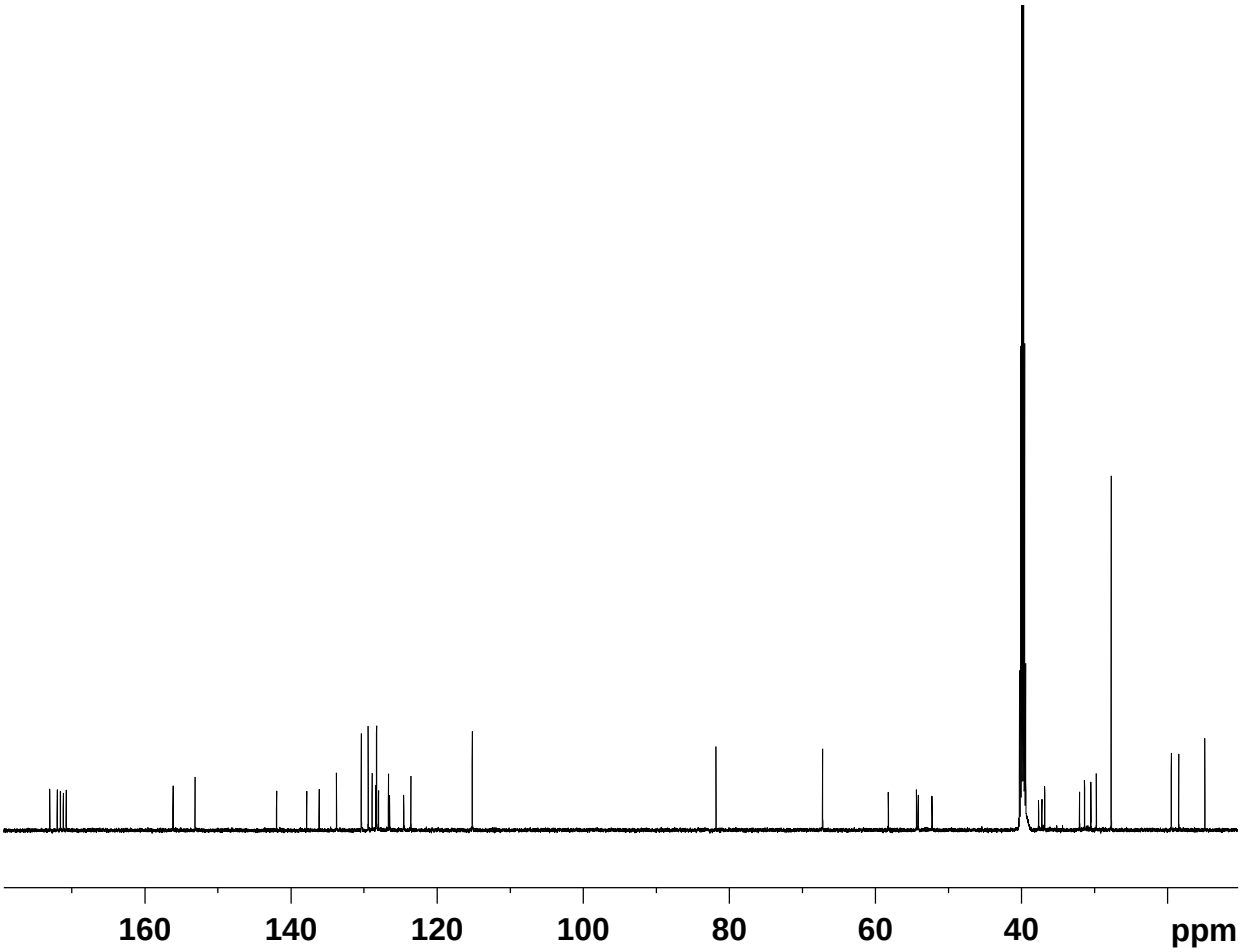



```
Current Data Parameters
NAME         KL-III-286
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Val-Met-Phe-Tyr (S12):

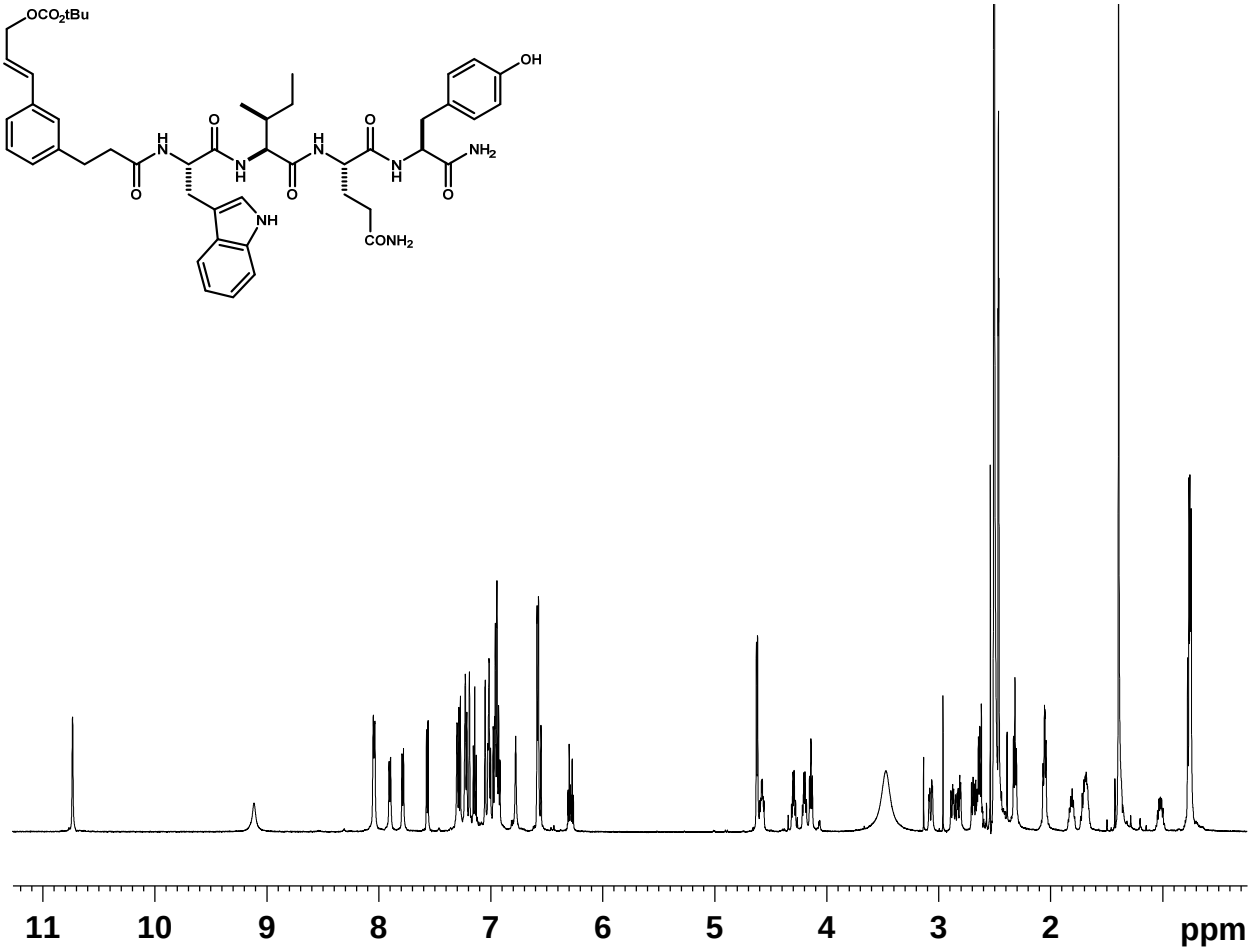



```
Current Data Parameters
NAME            KL-4-39
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20111010
Time              19.06
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                    2
DS                    0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                 90.5
DW               40.400 usec
DE                6.50 usec
TE               294.7 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

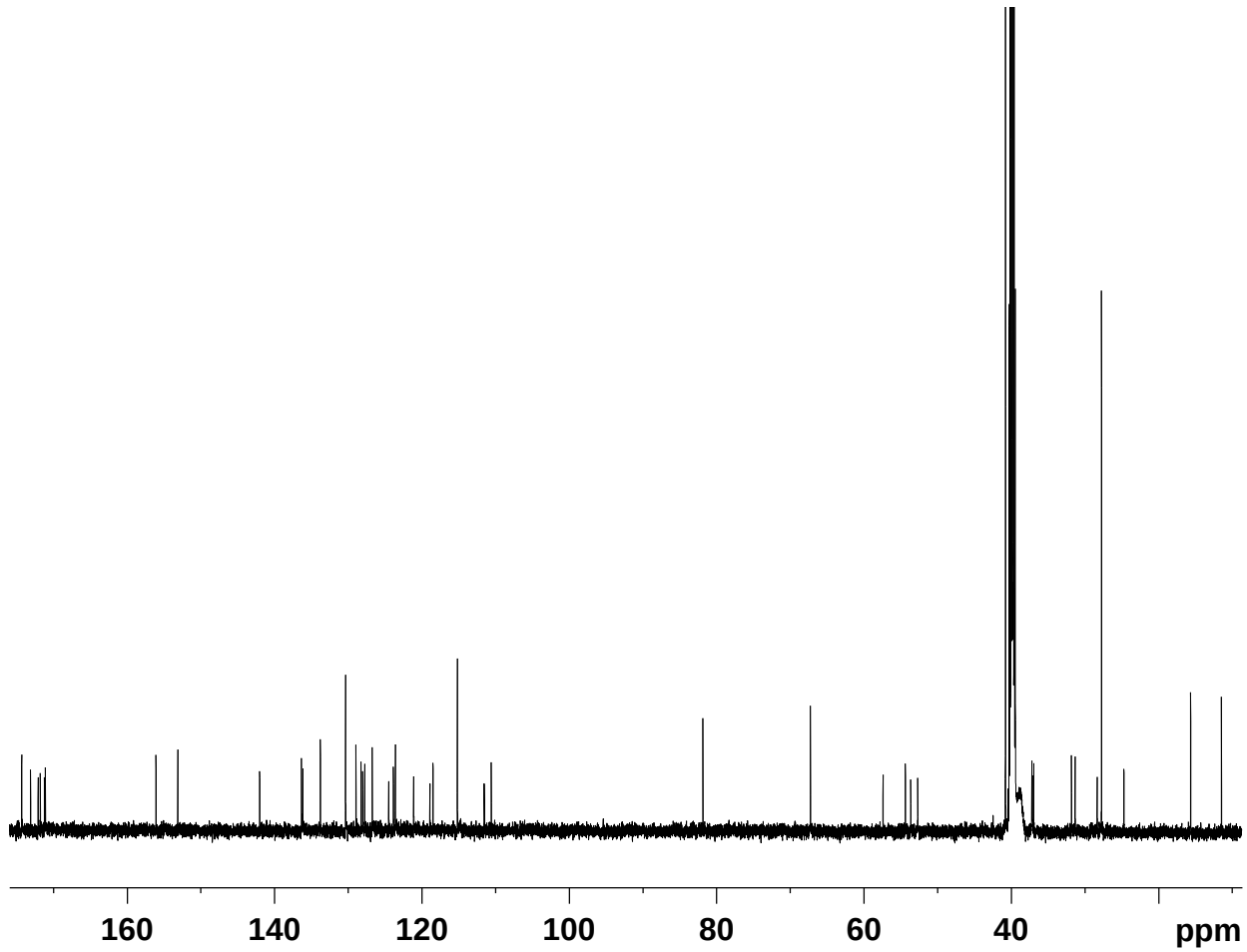



```
Current Data Parameters
NAME            KL-4-39
EXPNO                 3
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Trp-Ile-Gln-Tyr (S13):

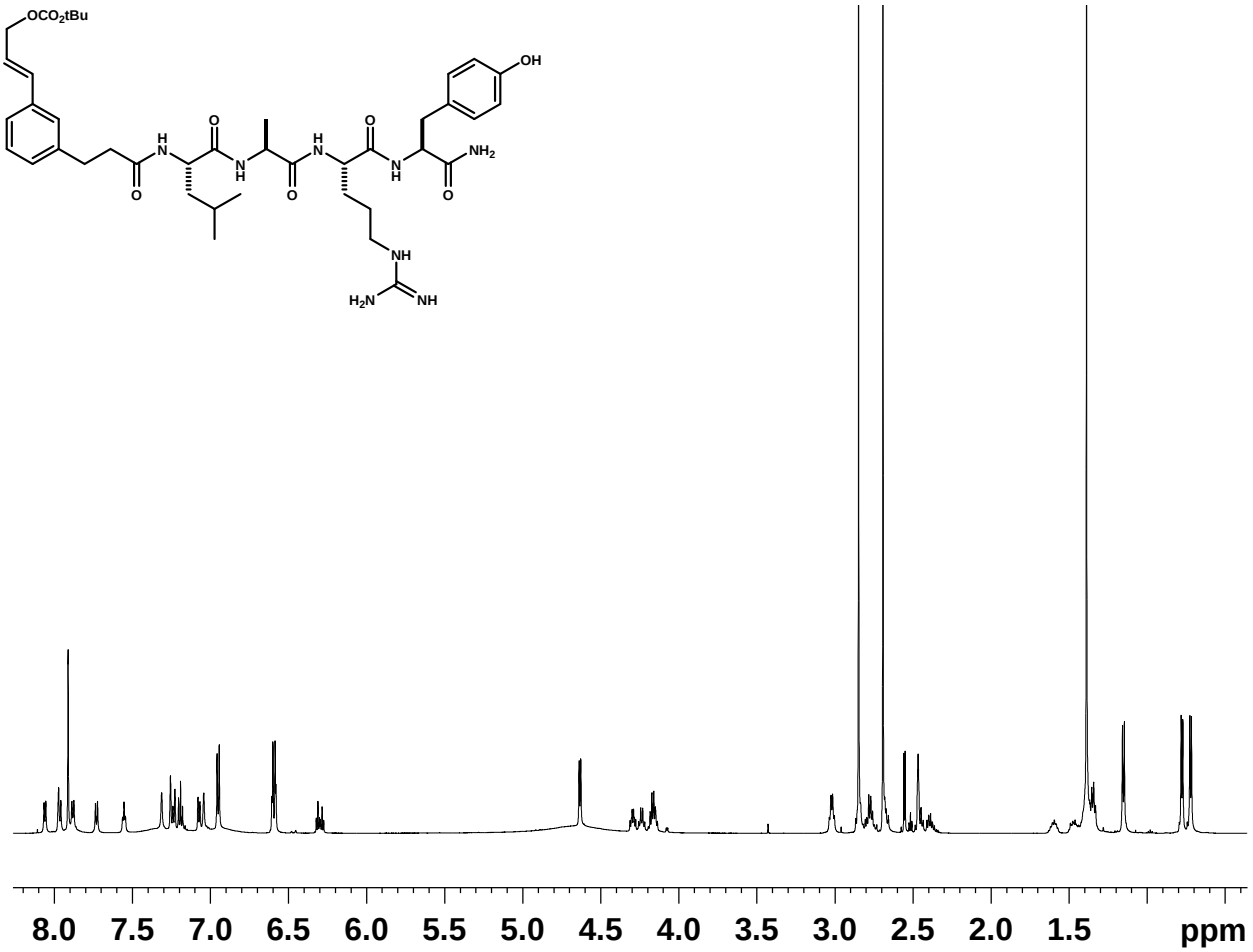



```
Current Data Parameters
NAME         KL-III-294
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110831
Time              14.13
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                 114
DW              40.400 usec
DE               6.50 usec
TE              294.0 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1               14.00 usec
PL1              -1.00 dB
PL1W       31.62277603 W
SFO1       600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

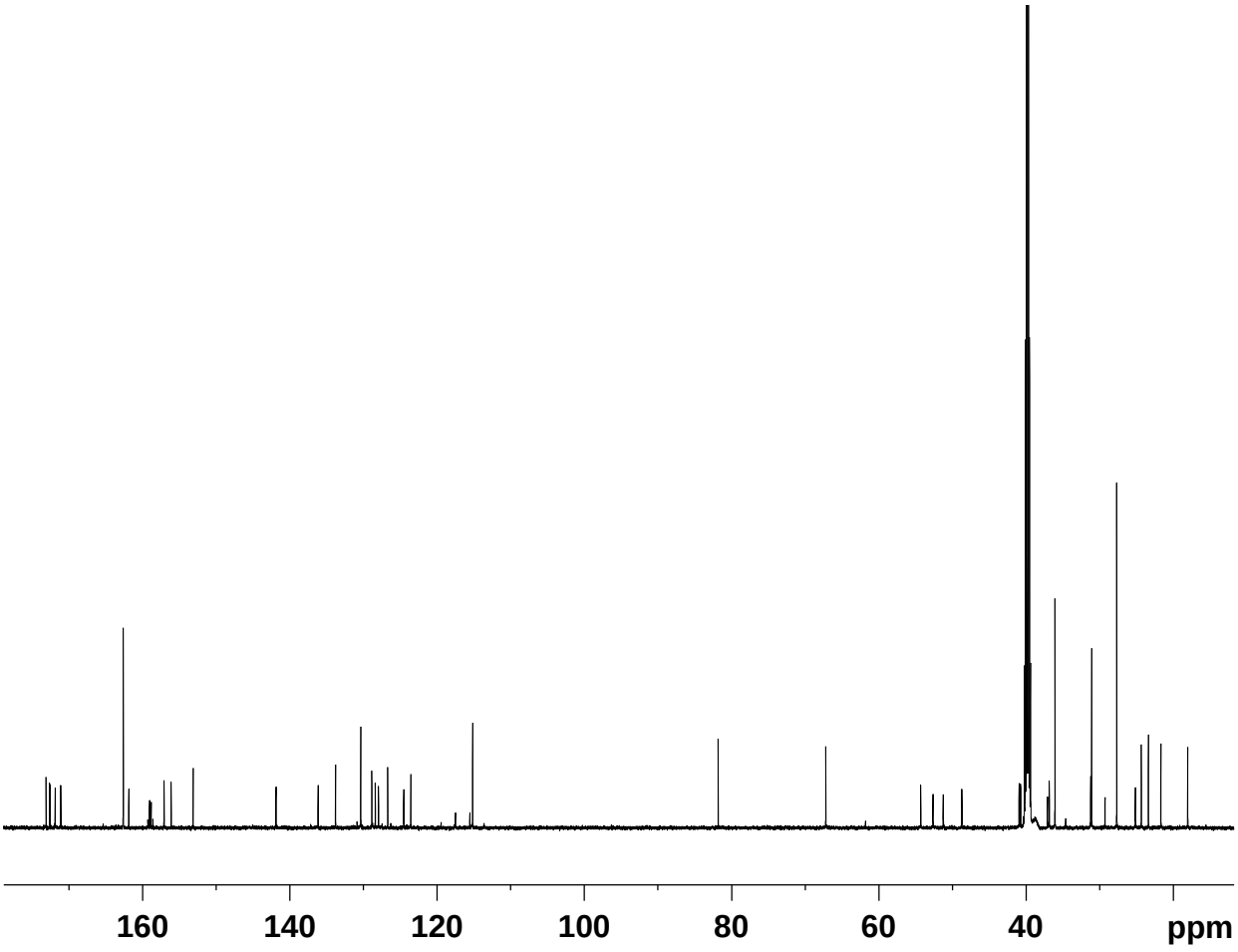



```
Current Data Parameters
NAME         KL-III-294
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Leu-Ala-Arg-Tyr (S14):

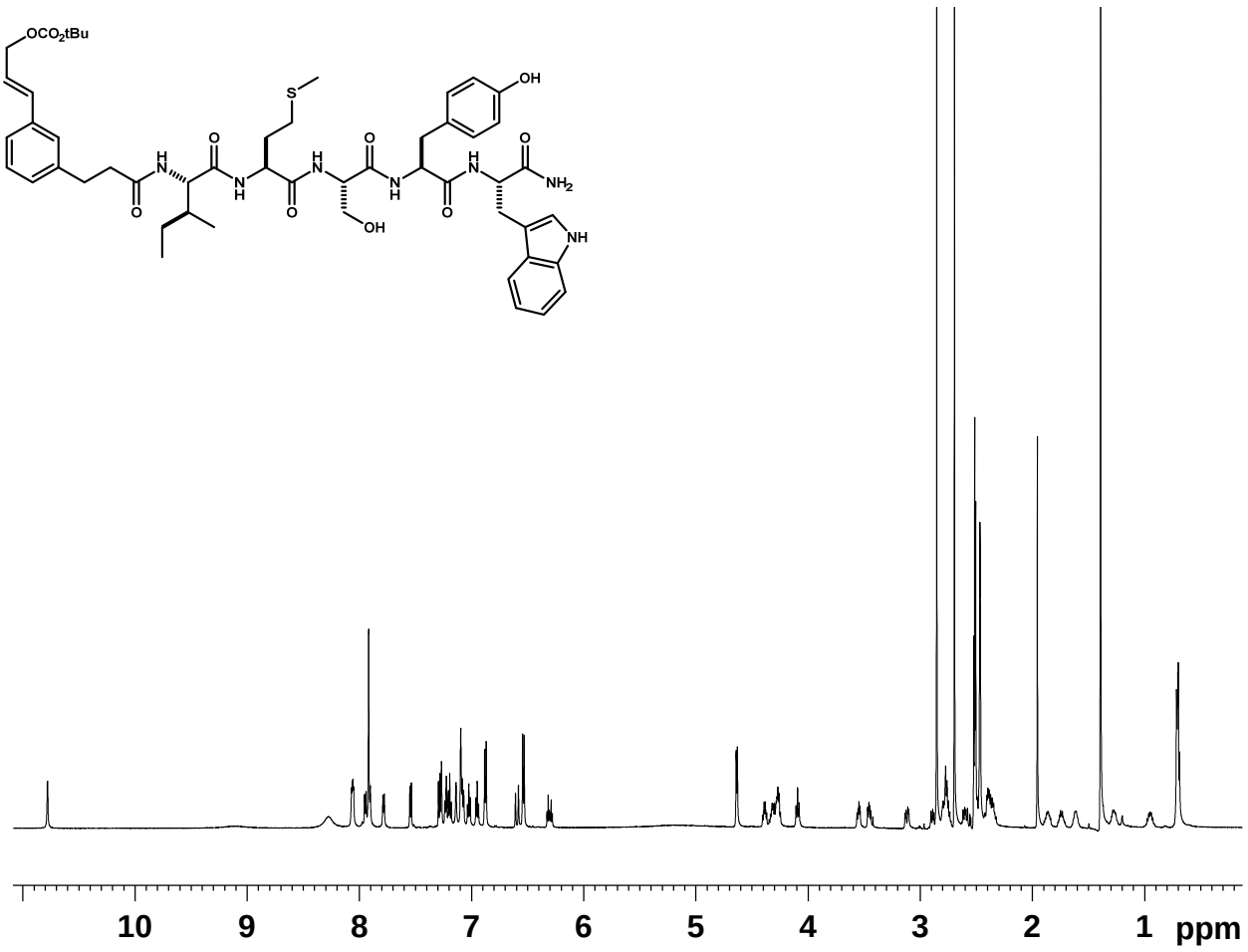



```
Current Data Parameters
NAME             KL-4-8
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110926
Time              17.17
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                45.3
DW               40.400 usec
DE                6.50 usec
TE               295.3 K
D1          2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

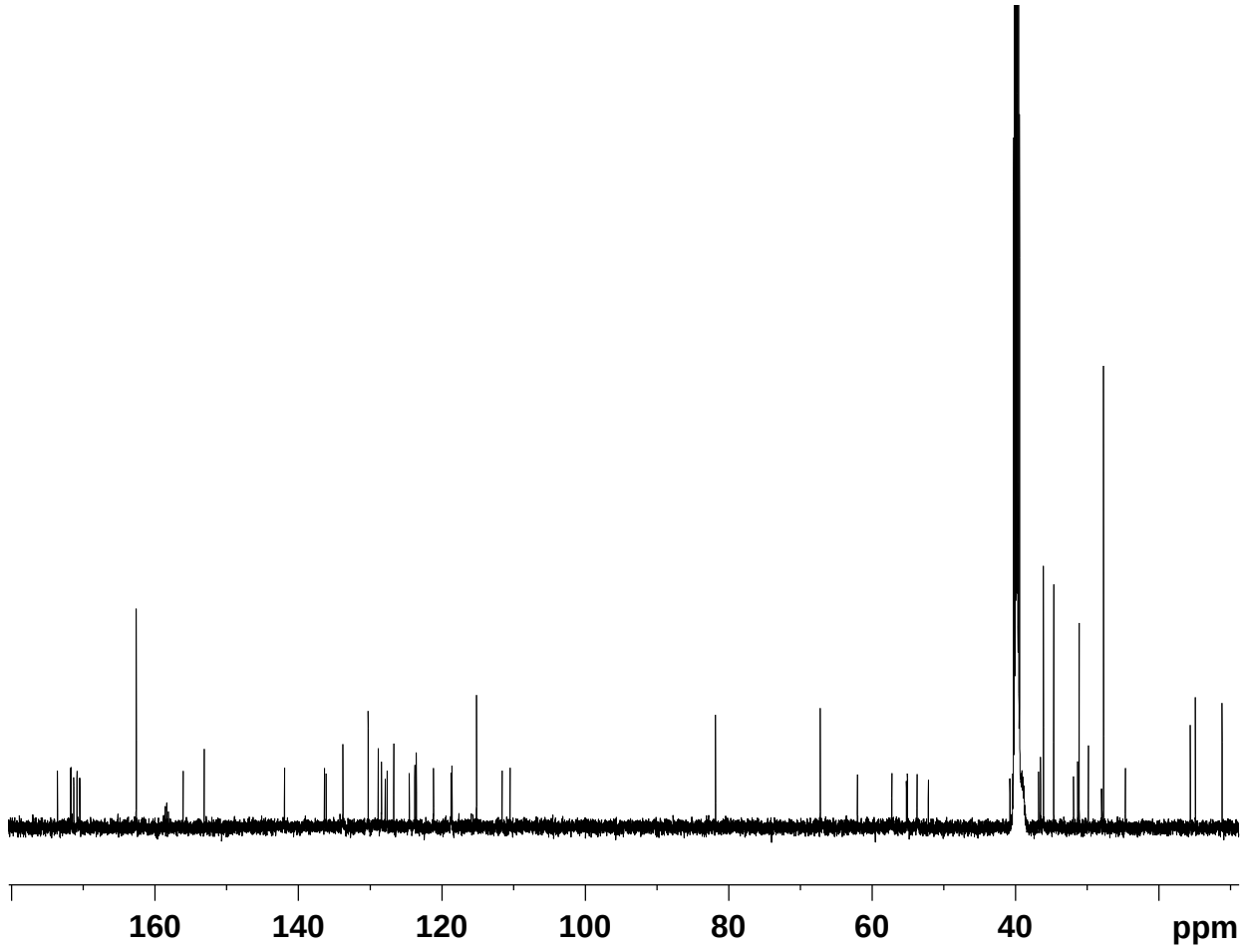



```
Current Data Parameters
NAME             KL-4-8
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ile-Met-Ser-Tyr-Trp (S15):

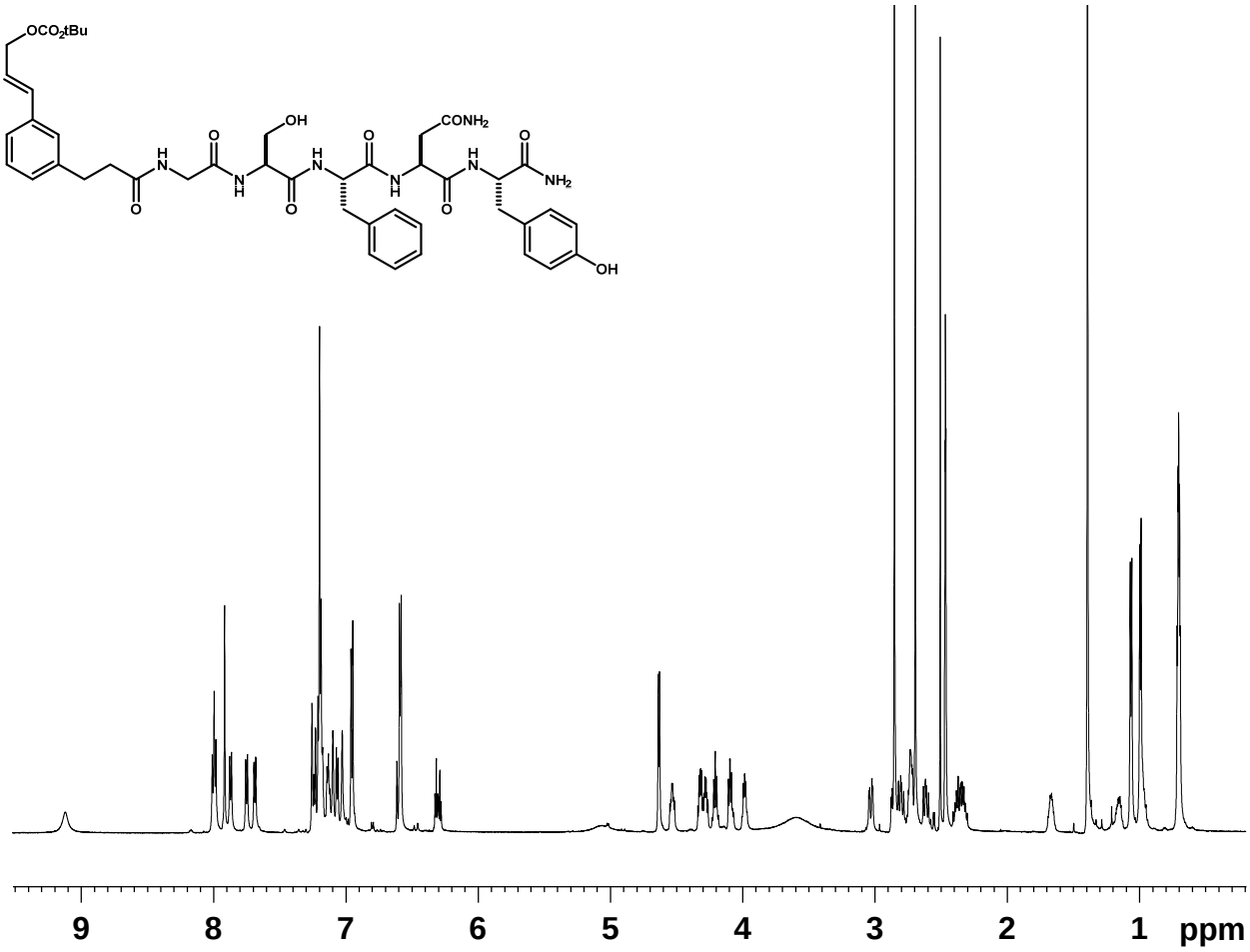



```
Current Data Parameters
NAME         KL-III-289
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110829
Time              14.51
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                 128
DW              40.400 usec
DE               6.50 usec
TE              294.5 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

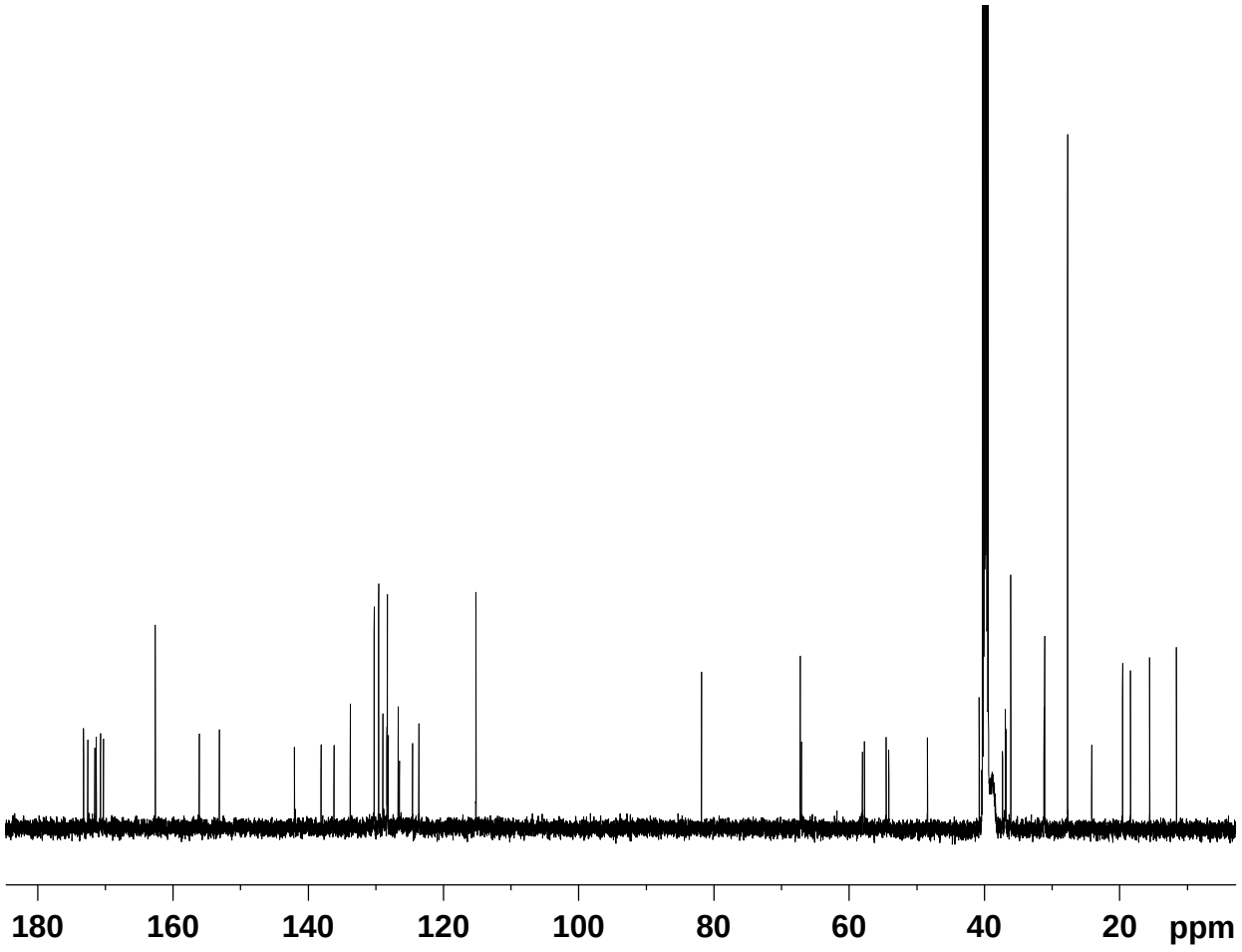



```
Current Data Parameters
NAME         KL-III-289
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ala-Phe-Thr-Ile-Tyr (S16):

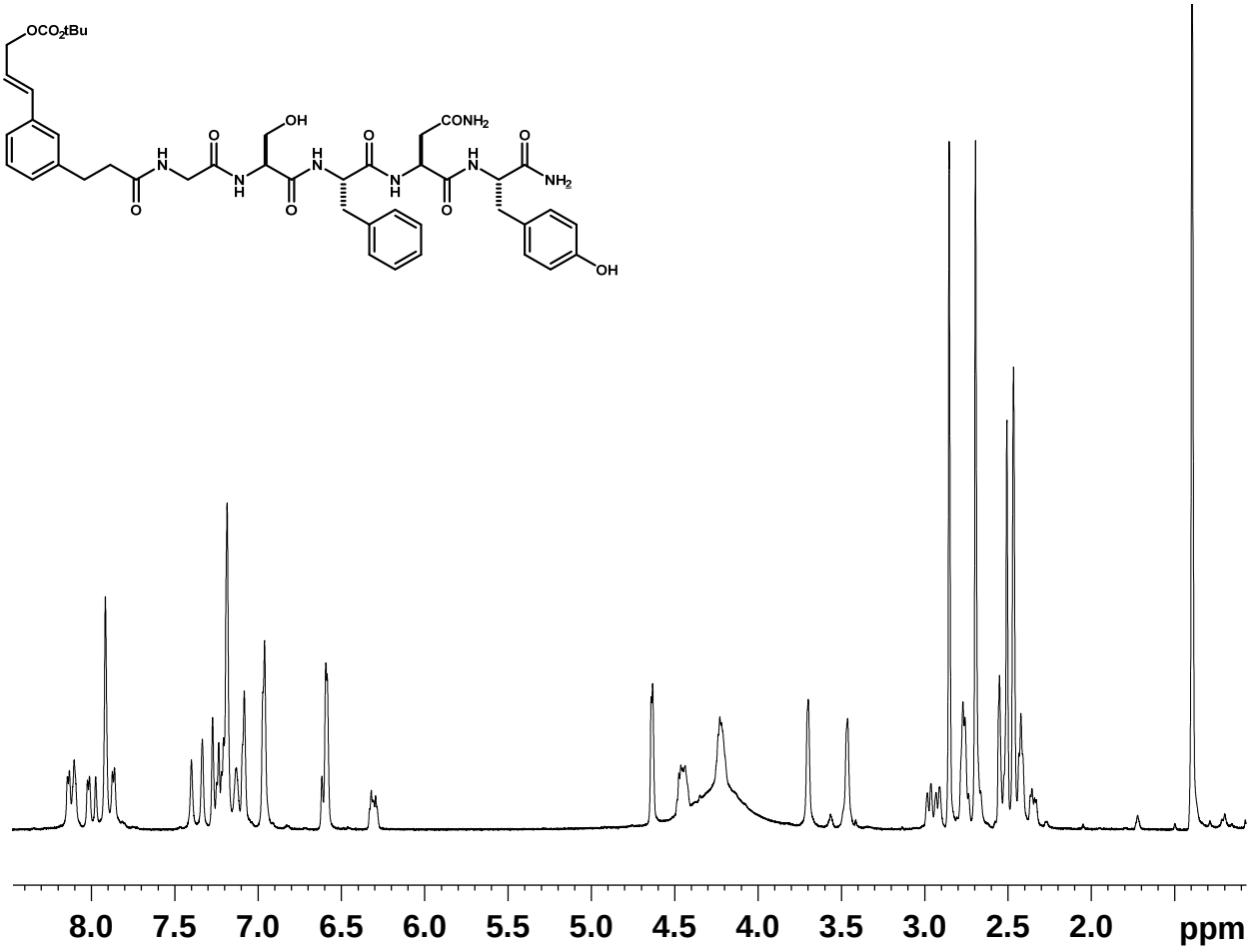



```
Current Data Parameters
NAME         KL-III-279
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110829
Time              16.16
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                 114
DW              40.400 usec
DE               6.50 usec
TE              294.2 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                 1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

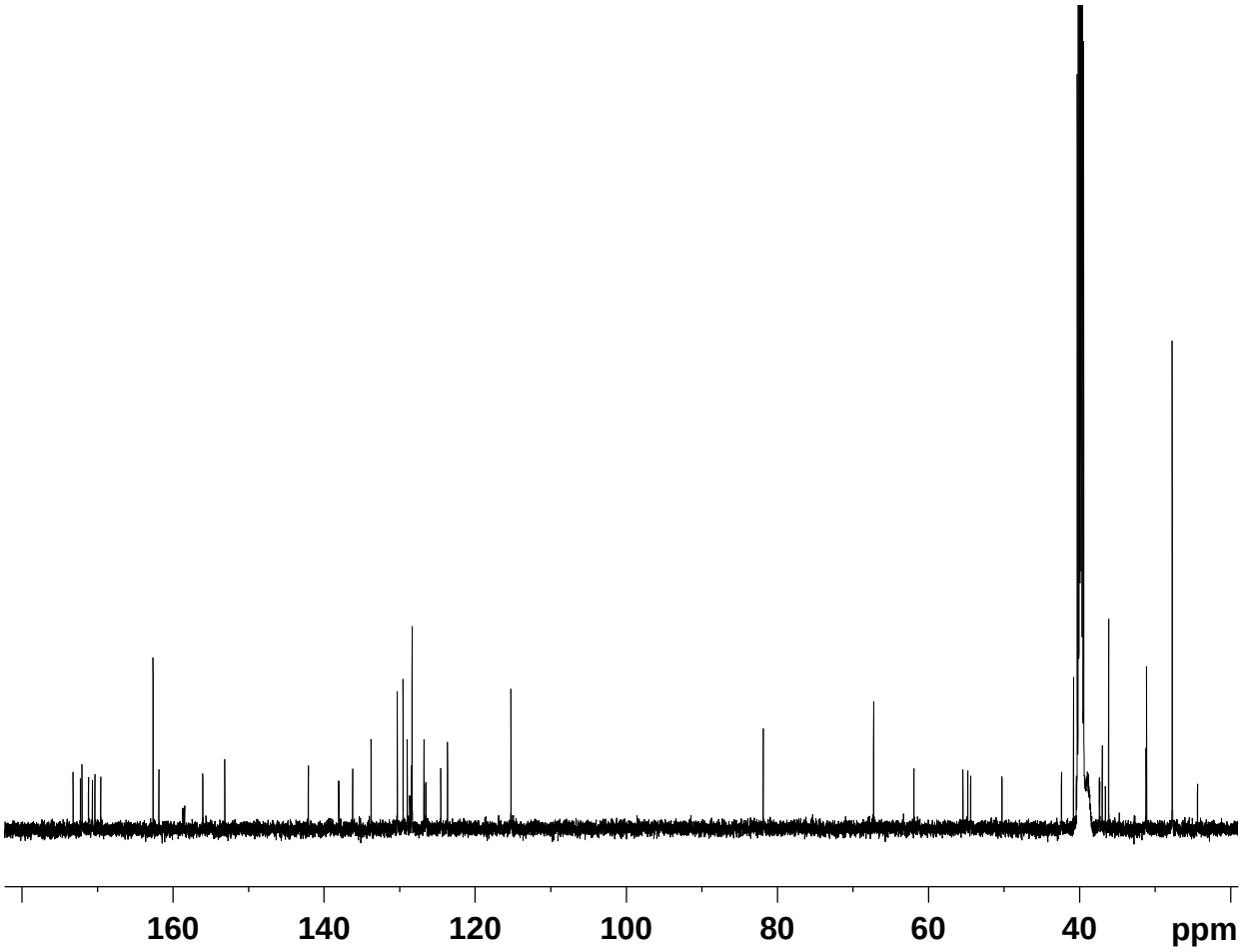



```
Current Data Parameters
NAME         KL-III-279
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Gly-Ser-Phe-Asn-Tyr (S17):



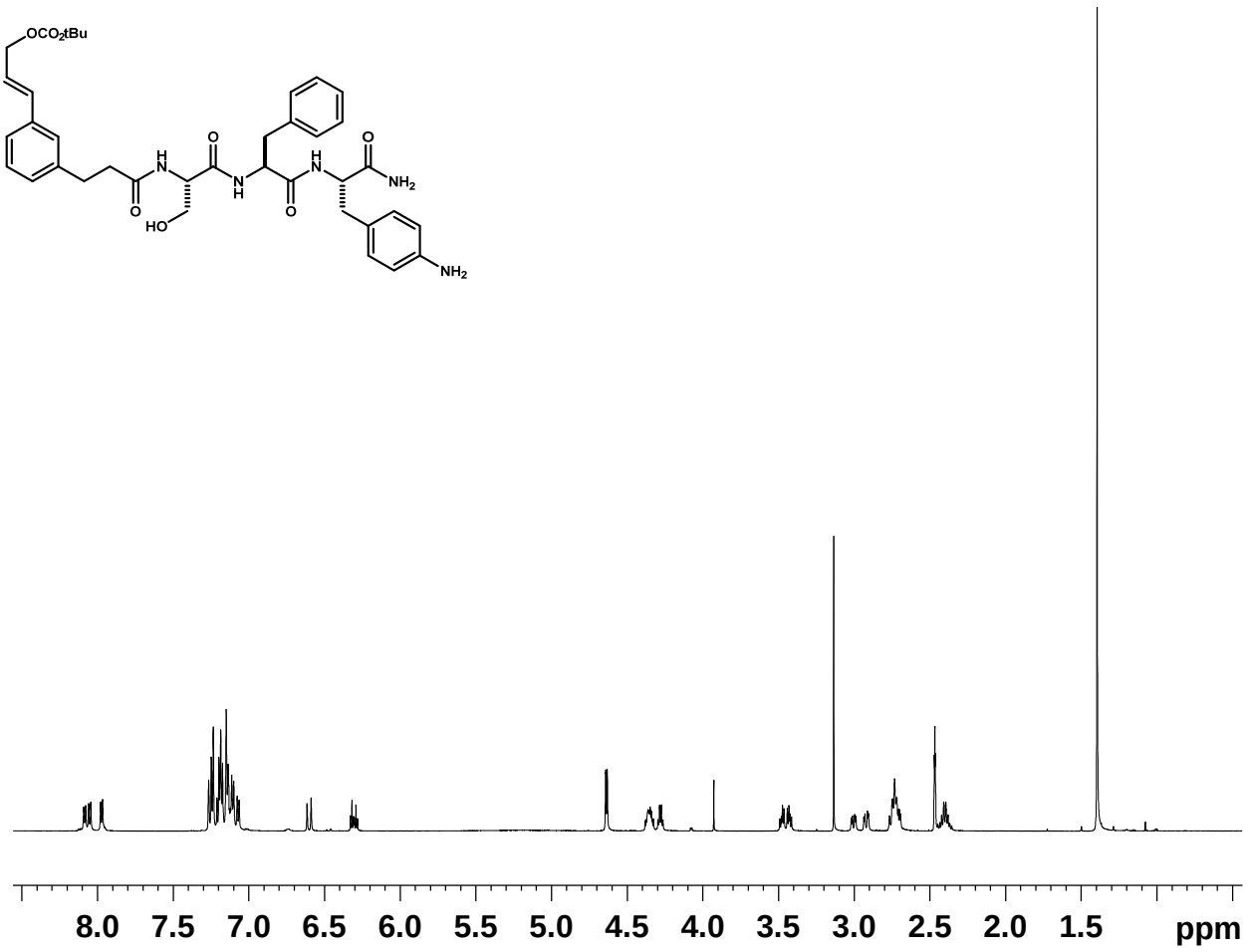

```
Current Data Parameters
NAME         KL-III-278
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110830
Time              16.05
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                 128
DW              40.400 usec
DE               6.50 usec
TE              294.7 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                 1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB       0 Hz
GB       0
PC                1.00
```



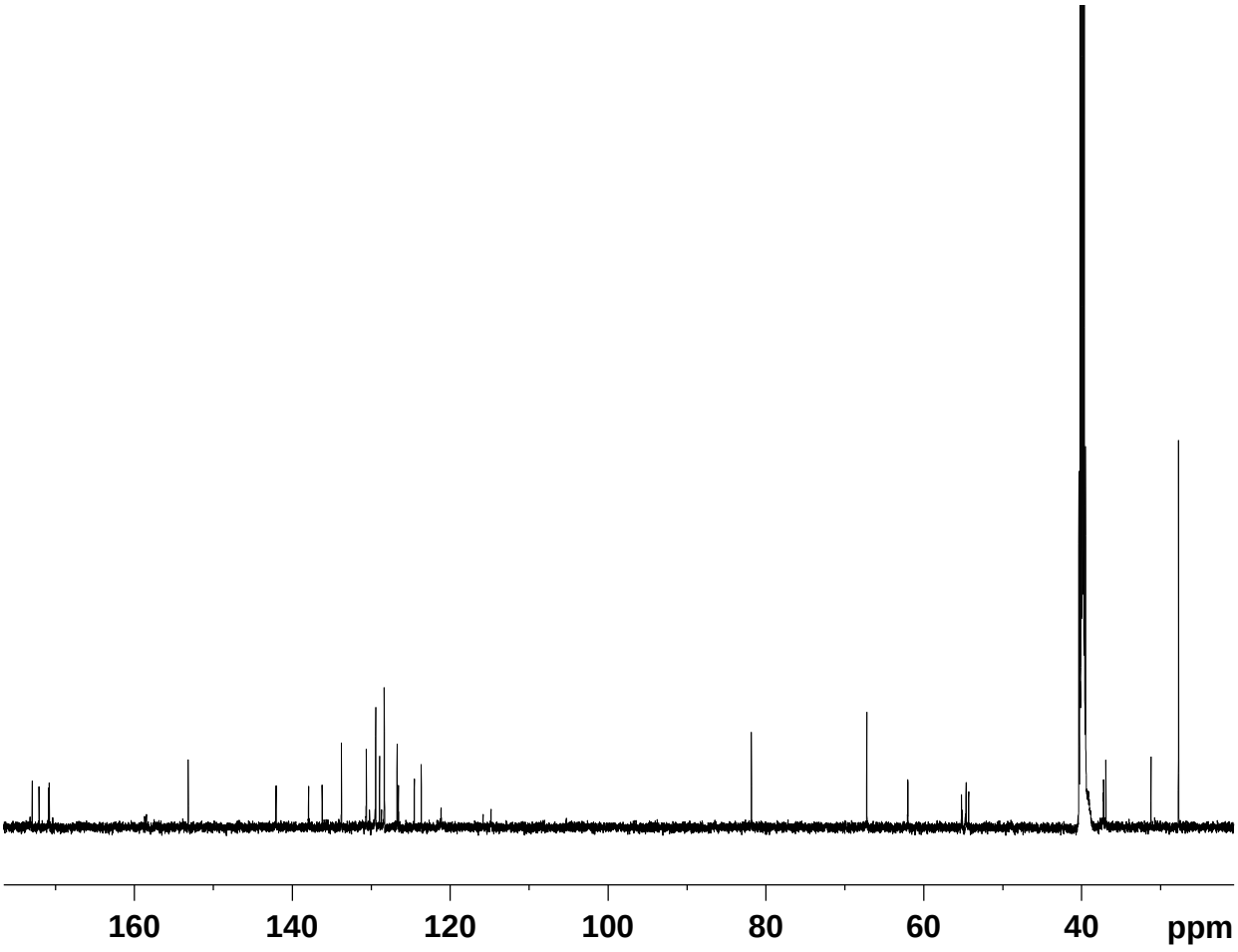

```
Current Data Parameters
NAME         KL-III-278
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ser-Phe-Phe(4-NH_2) (S18):

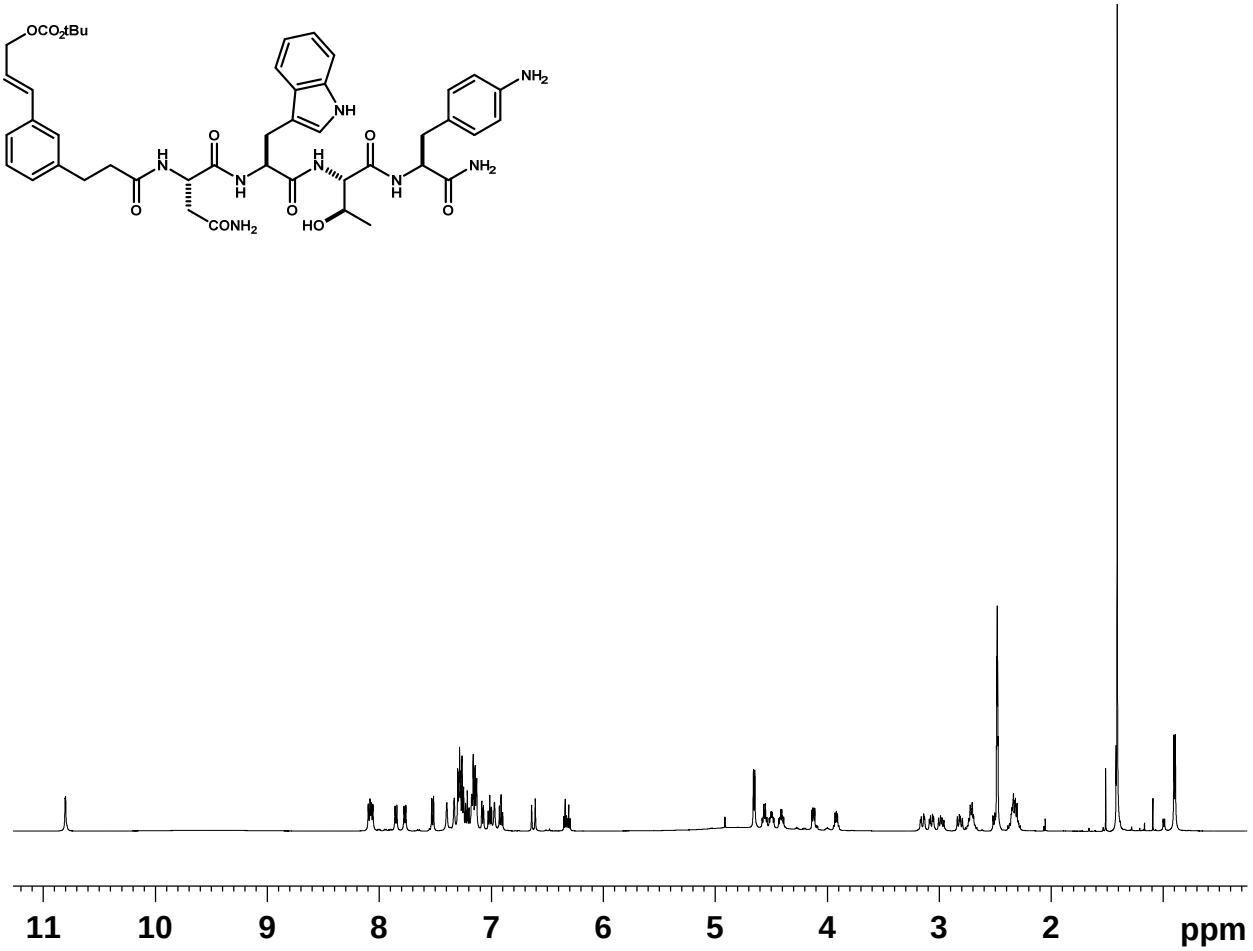

```
Current Data Parameters
NAME     KL-4-62_reprep
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20120125
Time               19.30
INSTRUM            av600
PROBHD   5 mm BB5
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                161.3
DW               40.400 usec
DE                6.50 usec
TE                295.2 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 8.60 usec
PL1               -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                 65536
SF          600.1300273 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```



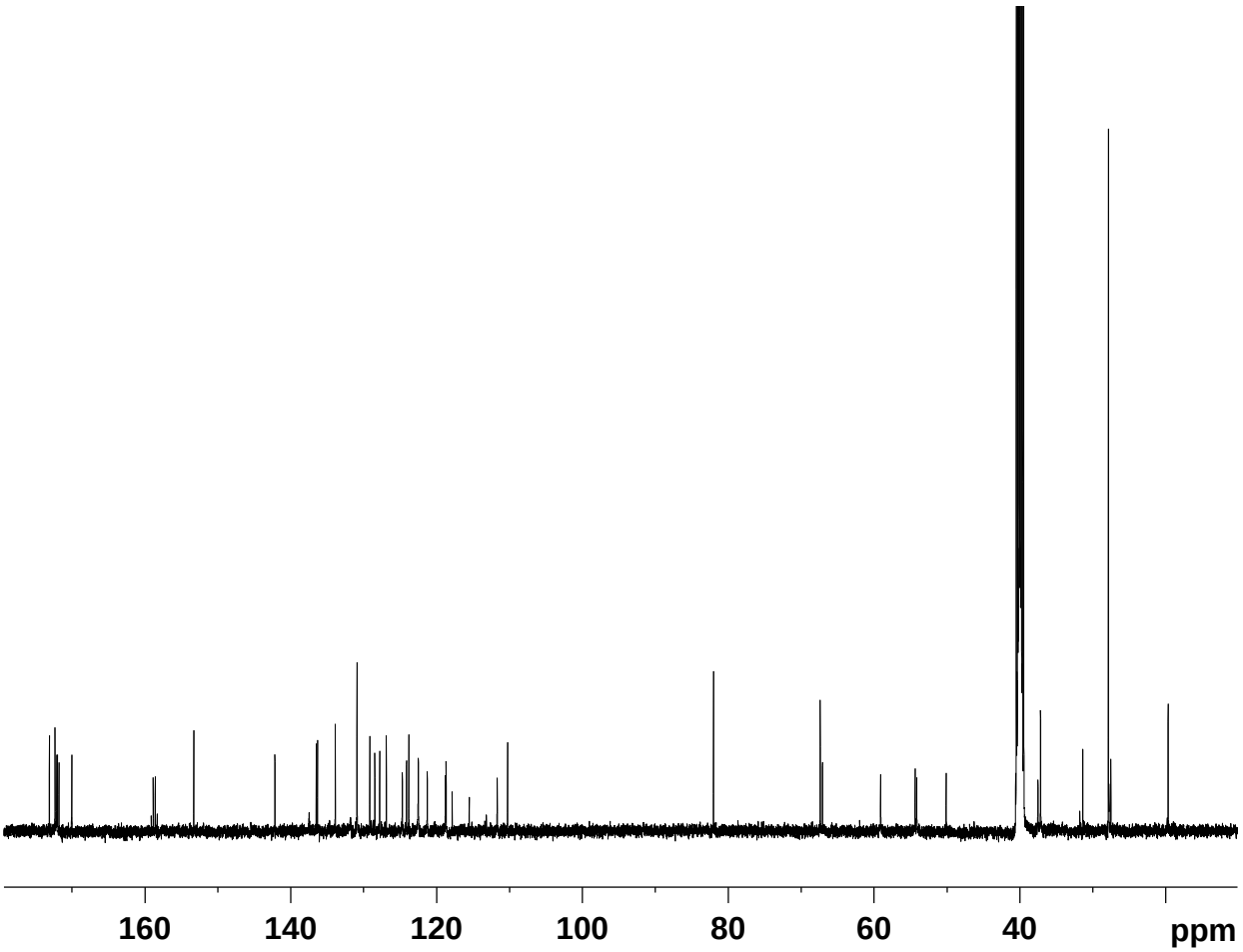

```
Current Data Parameters
NAME            KL-4-62
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                 65536
SF          150.9028319 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```



Acyclic-Asn-Trp-Thr-Phe(4-NH_2) (S19):

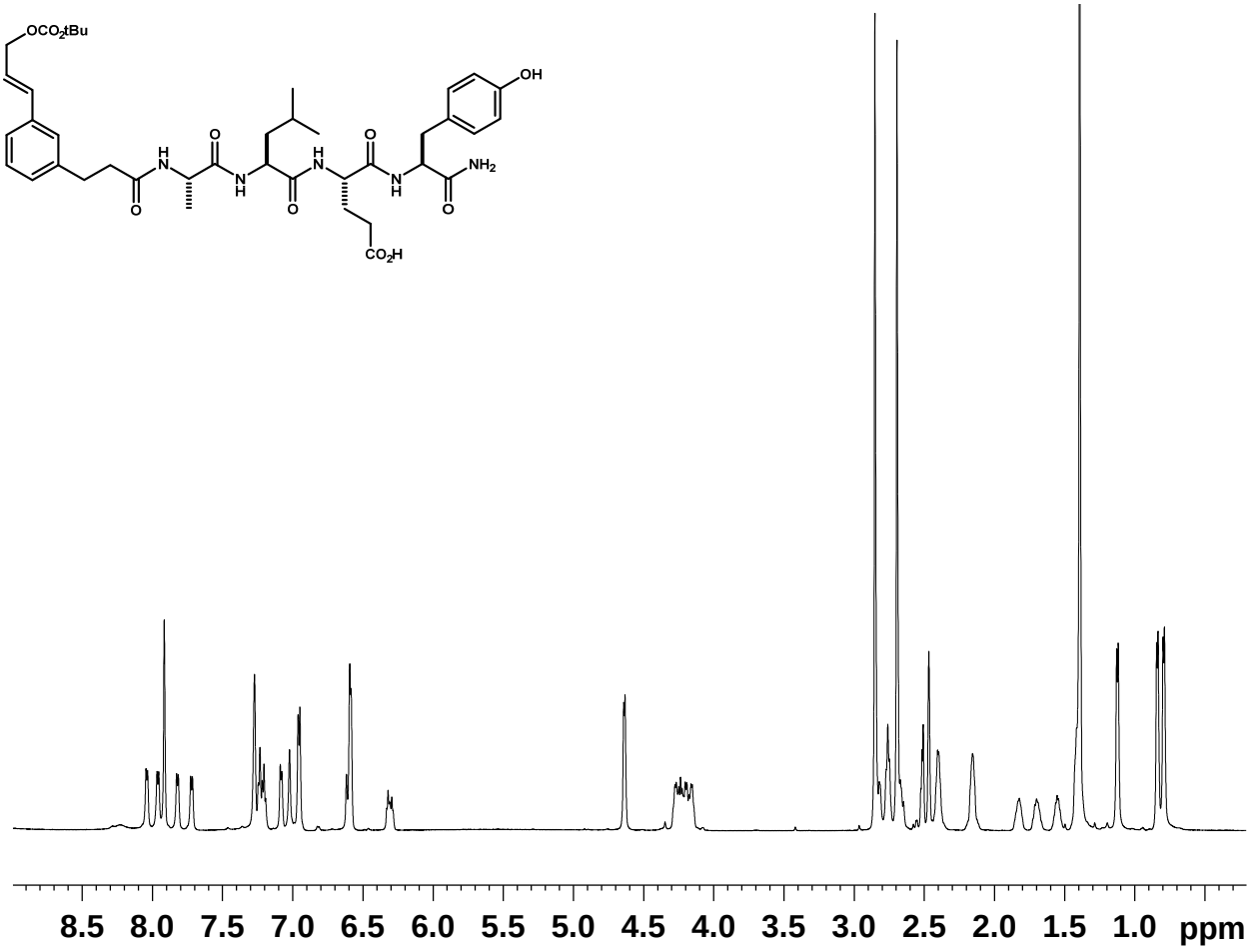



```
Current Data Parameters
NAME           KL-5-127
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130209
Time              15.55
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES        0.152588 Hz
AQ            3.2767999 sec
RG                   11
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

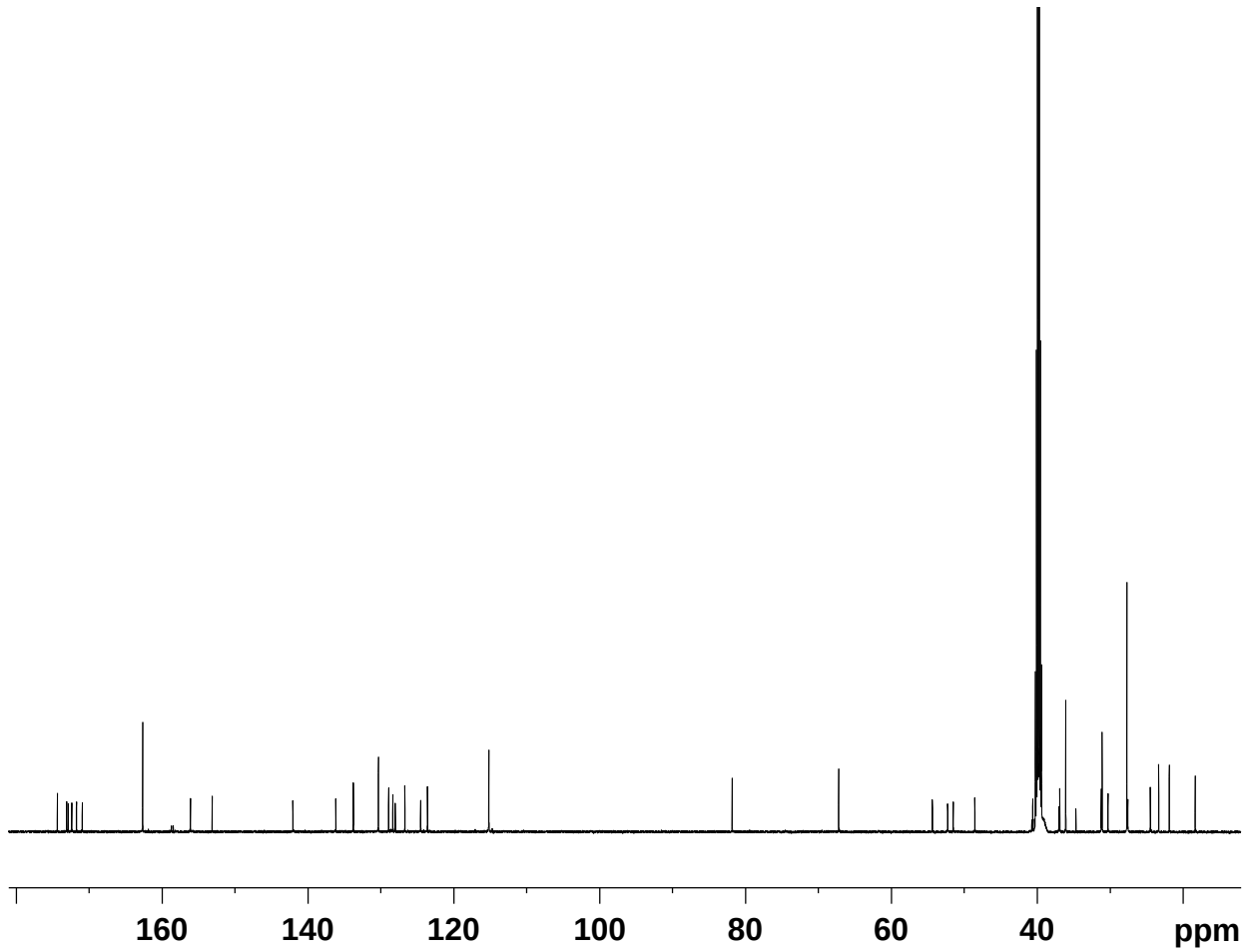



```
Current Data Parameters
NAME           KL-5-127
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130209
Time              15.58
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                   66
DS                    2
SWH           31250.000 Hz
FIDRES        0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE                18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ala-Leu-Glu-Tyr (15):

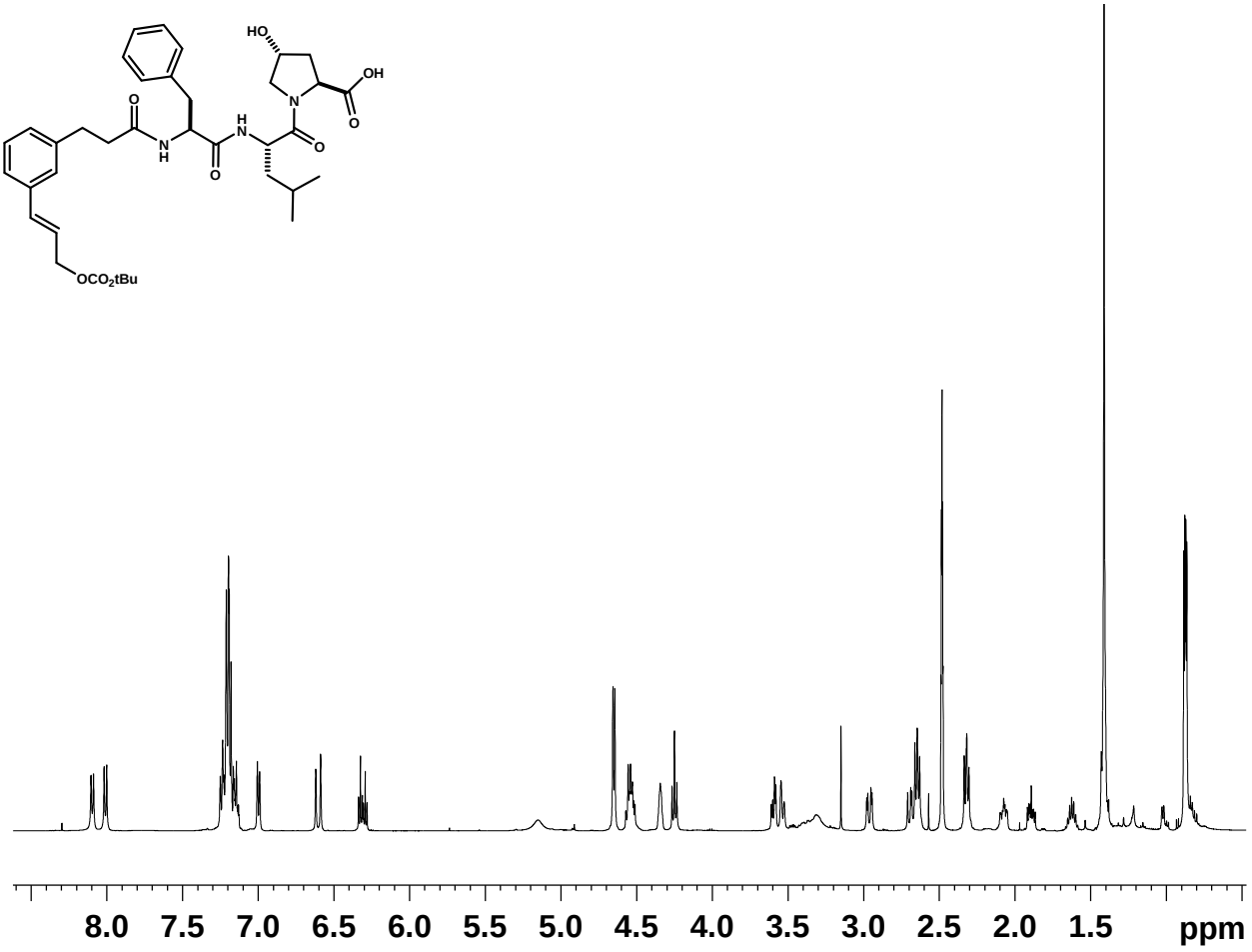



```
Current Data Parameters
NAME         KL-III-283
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110830
Time              17.22
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                71.8
DW               40.400 usec
DE                6.50 usec
TE               294.7 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                 1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

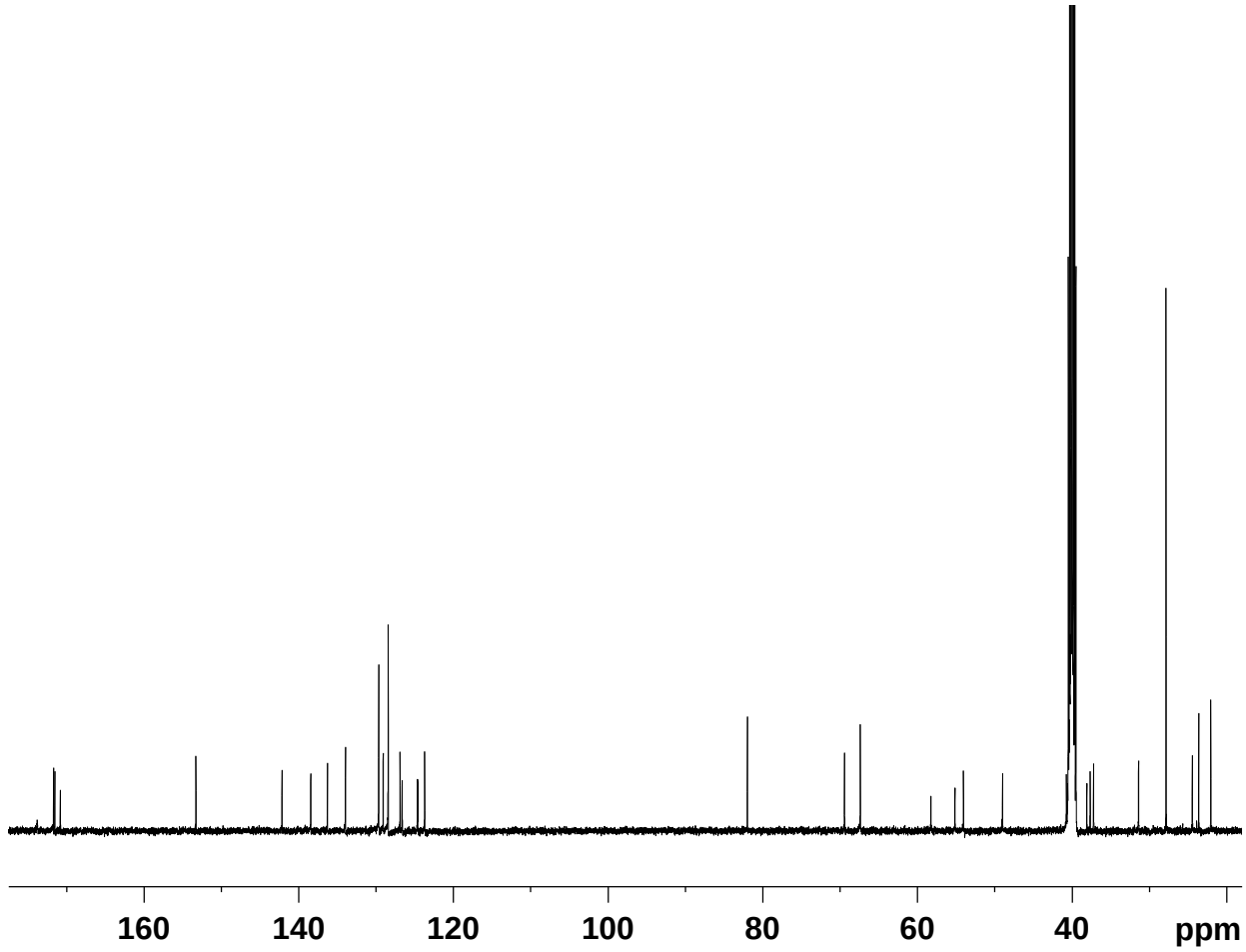



```
Current Data Parameters
NAME         KL-III-283
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Phe-Leu-Hyp (S21):

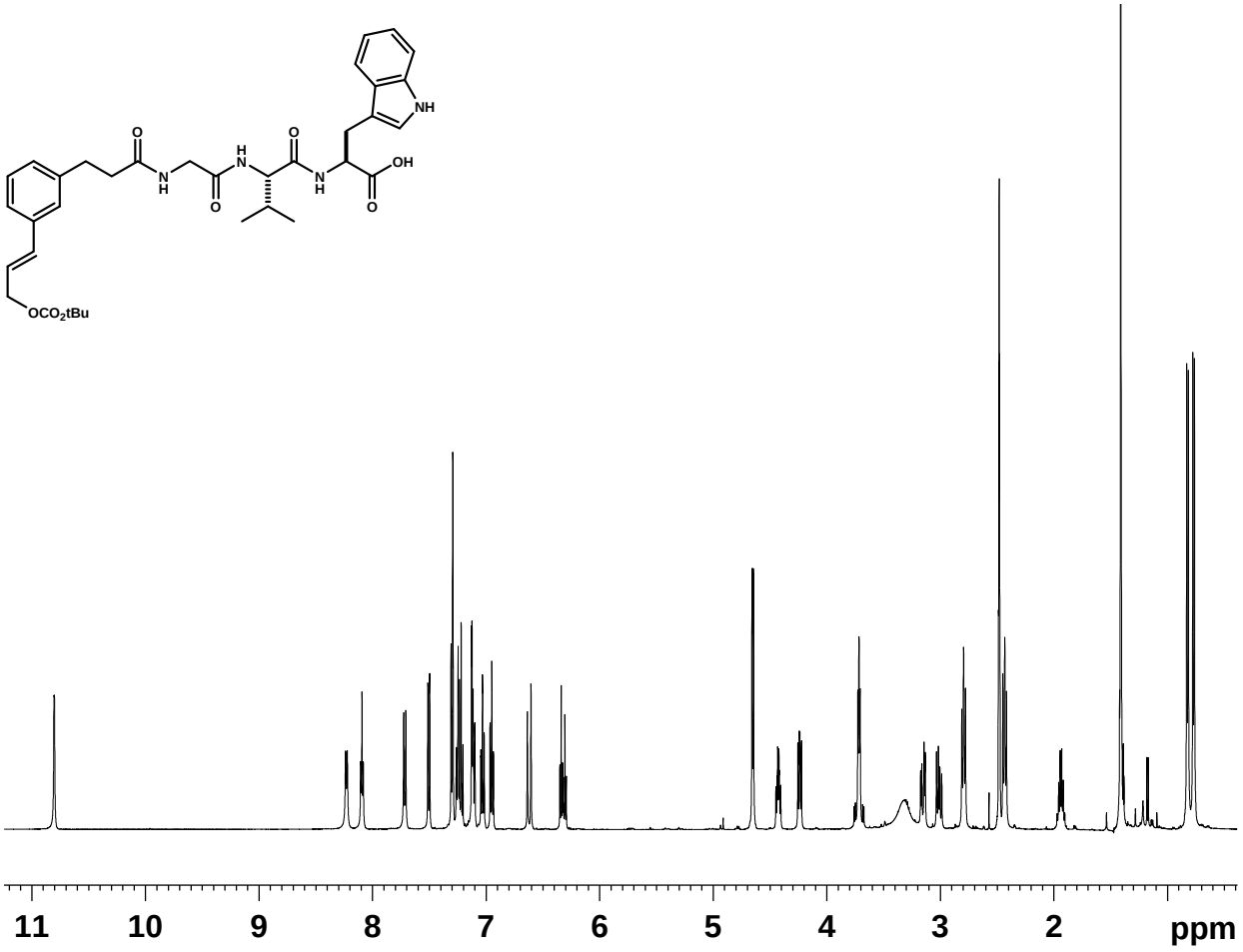



```
Current Data Parameters
NAME            KL-5-11
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20120821
Time              17.09
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG               129.78
DW               50.000 usec
DE               10.00 usec
TE               298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

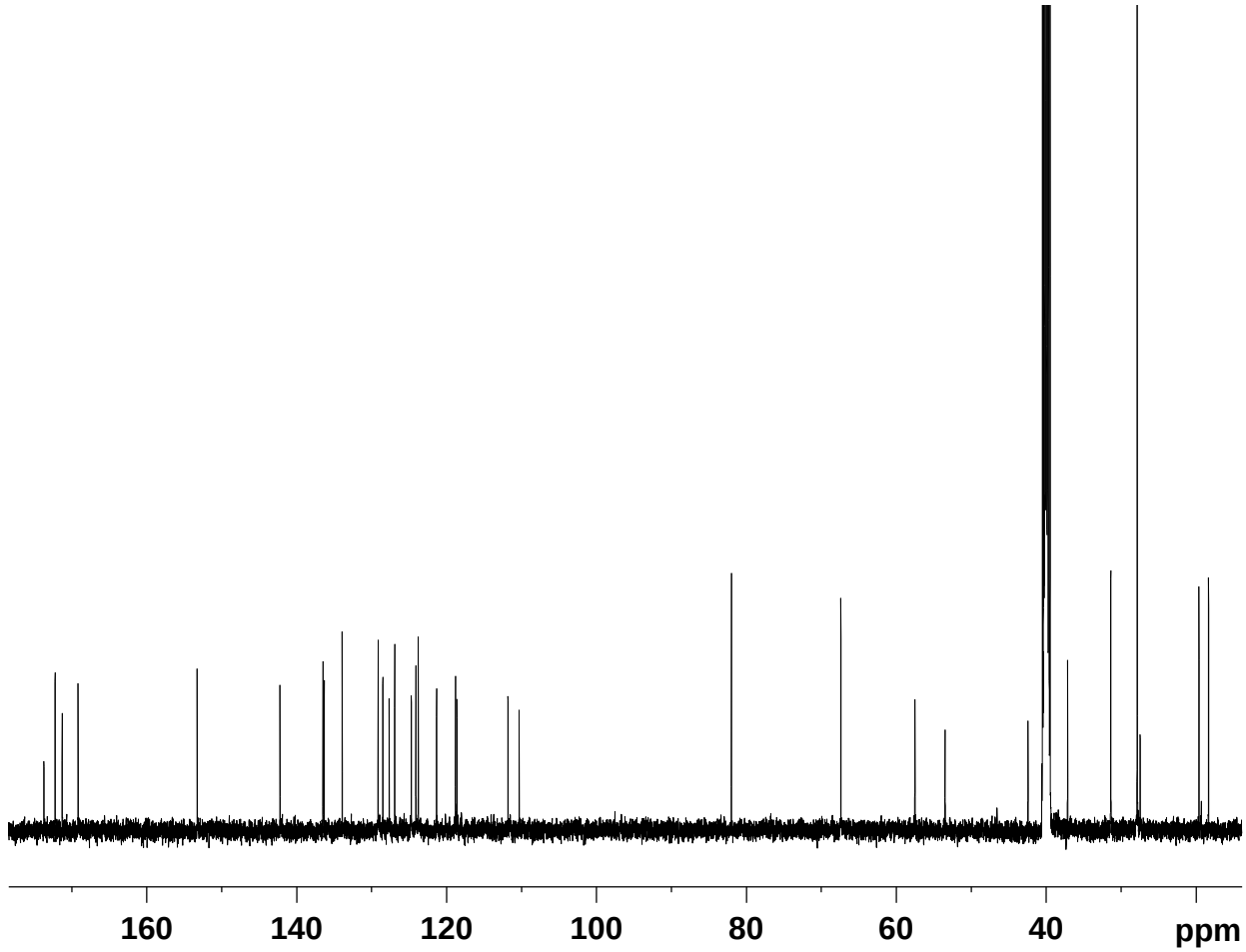



```
Current Data Parameters
NAME            KL-5-11
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Gly-Val-Trp (S22):

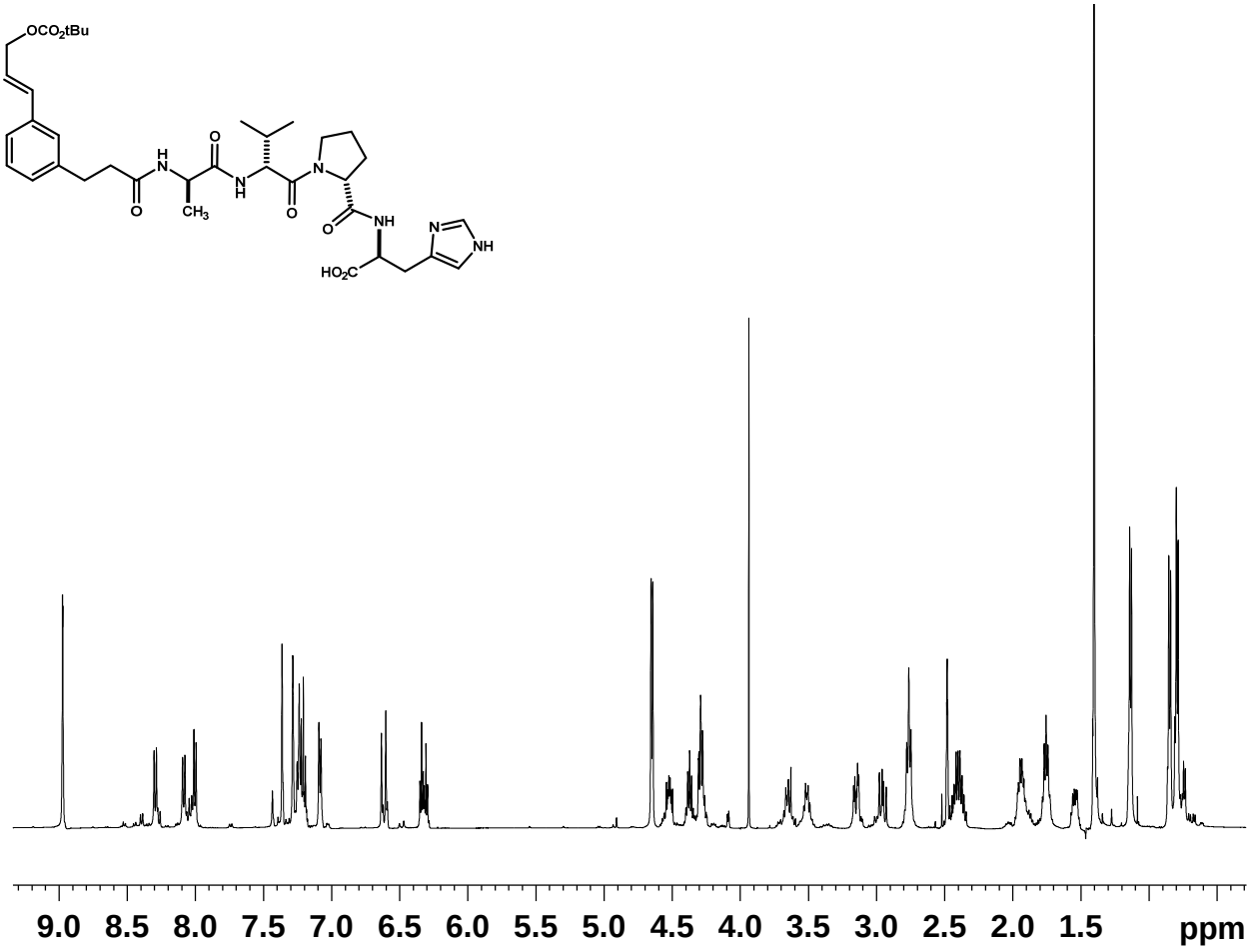



```
Current Data Parameters
NAME            KL-4-188
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20120821
Time               19.01
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                145.12
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300146 MHz
WDW                   EM
SSB      0
LB       0 Hz
GB       0
PC                 1.00
```

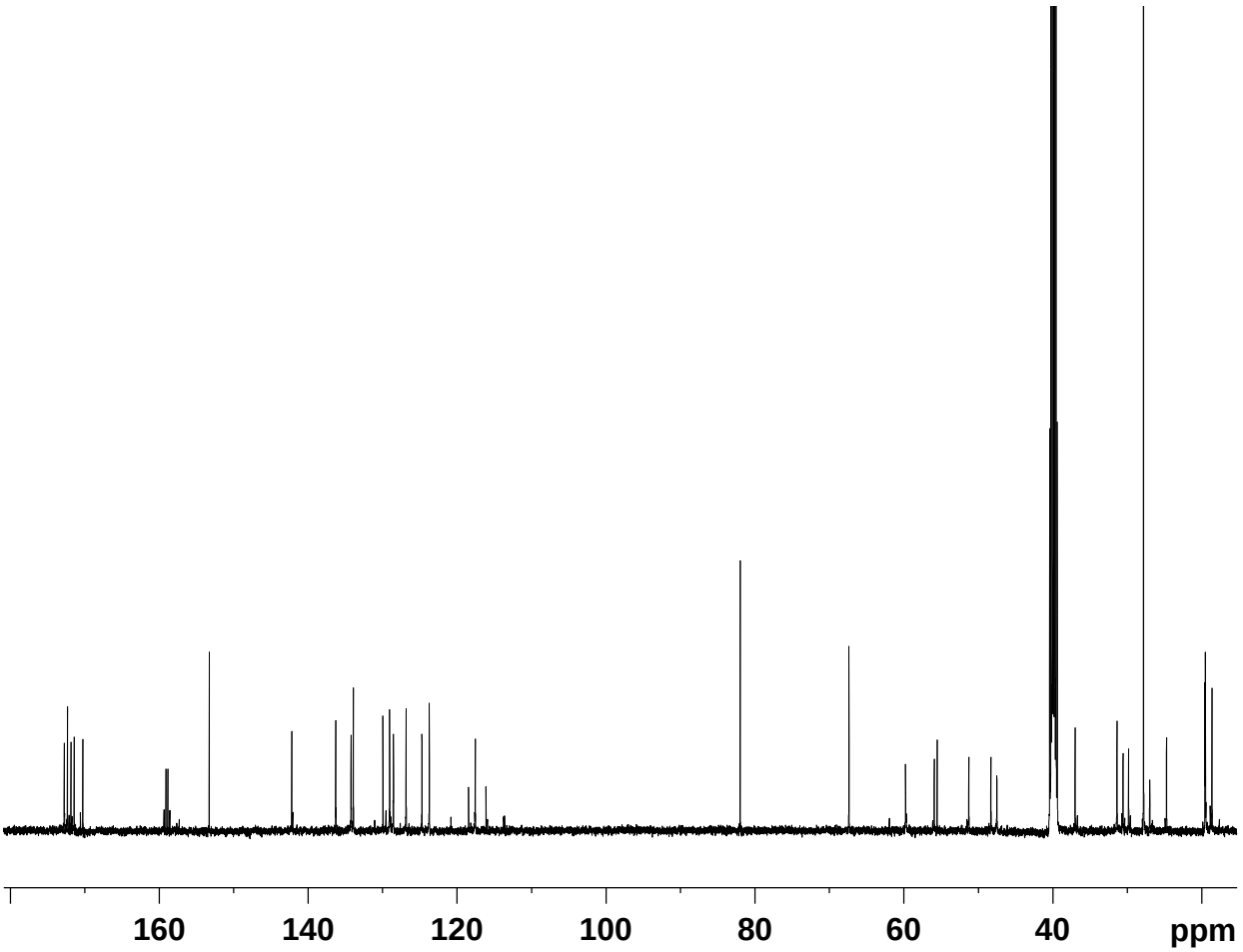



```
Current Data Parameters
NAME            KL-4-188
EXPNO                  2
PROCNO                 1

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                   EM
SSB      0
LB                1.00 Hz
GB       0
PC                 1.40
```

Acyclic-Ala-Val-Pro-His-OH (S23):

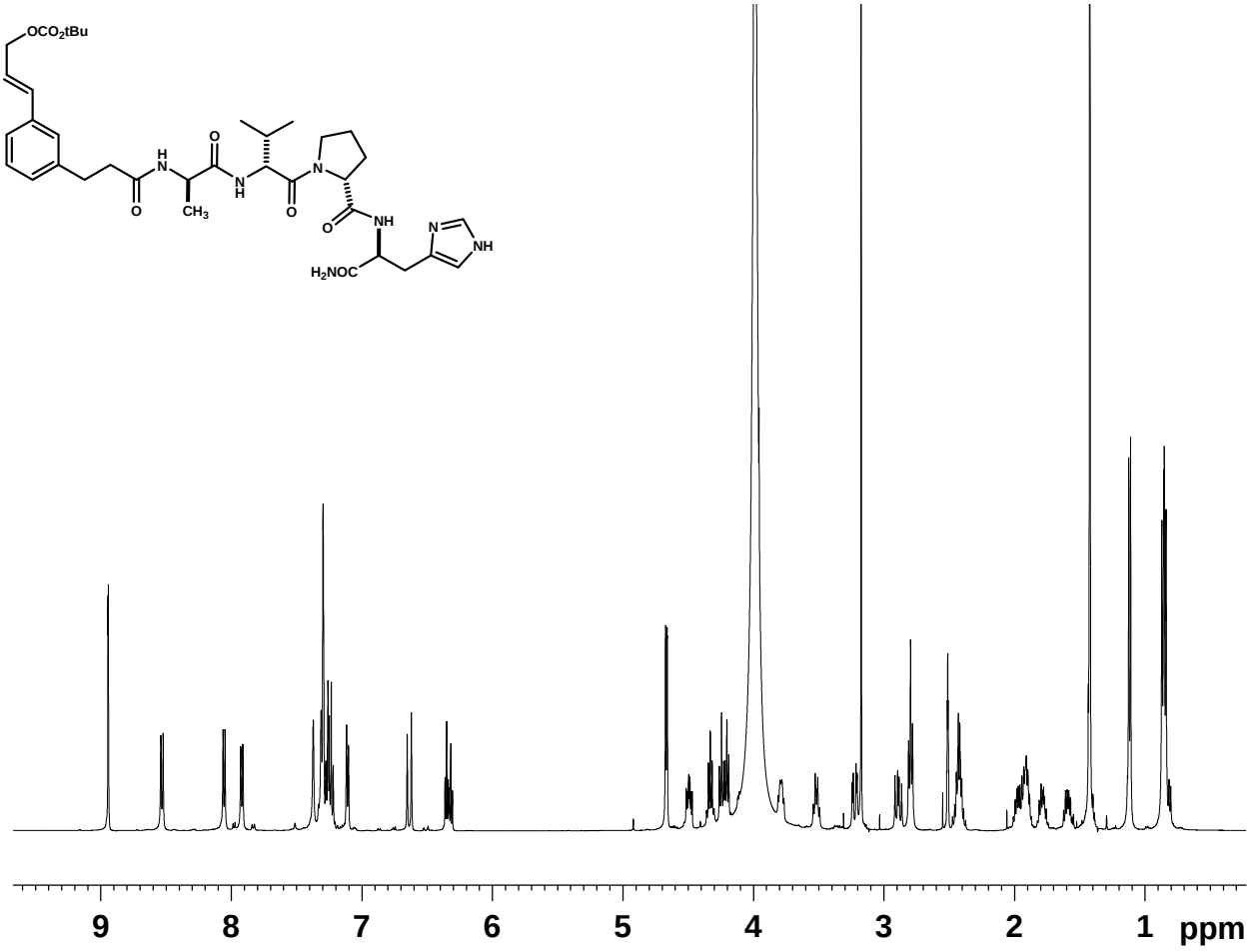



```
Current Data Parameters
NAME            KL-4-161
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20120329
Time               17.31
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                    11
DW               50.000 usec
DE               10.00 usec
TE                296.0 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300146 MHz
WDW                   EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

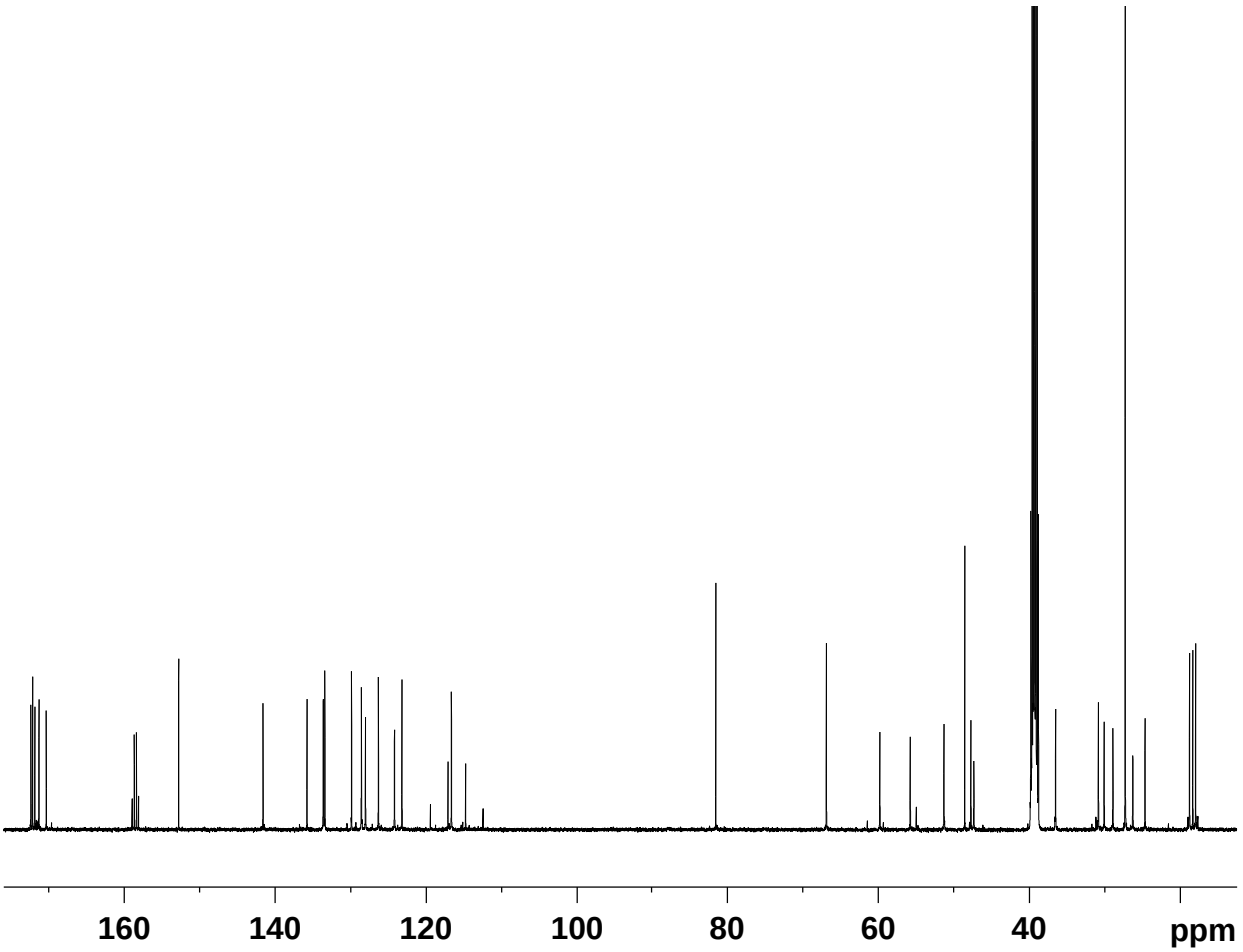



```
Current Data Parameters
NAME            KL-4-161
EXPNO                  1
PROCNO                 1

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                   EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ala-Val-Pro-His-NH$_2$ (S24):

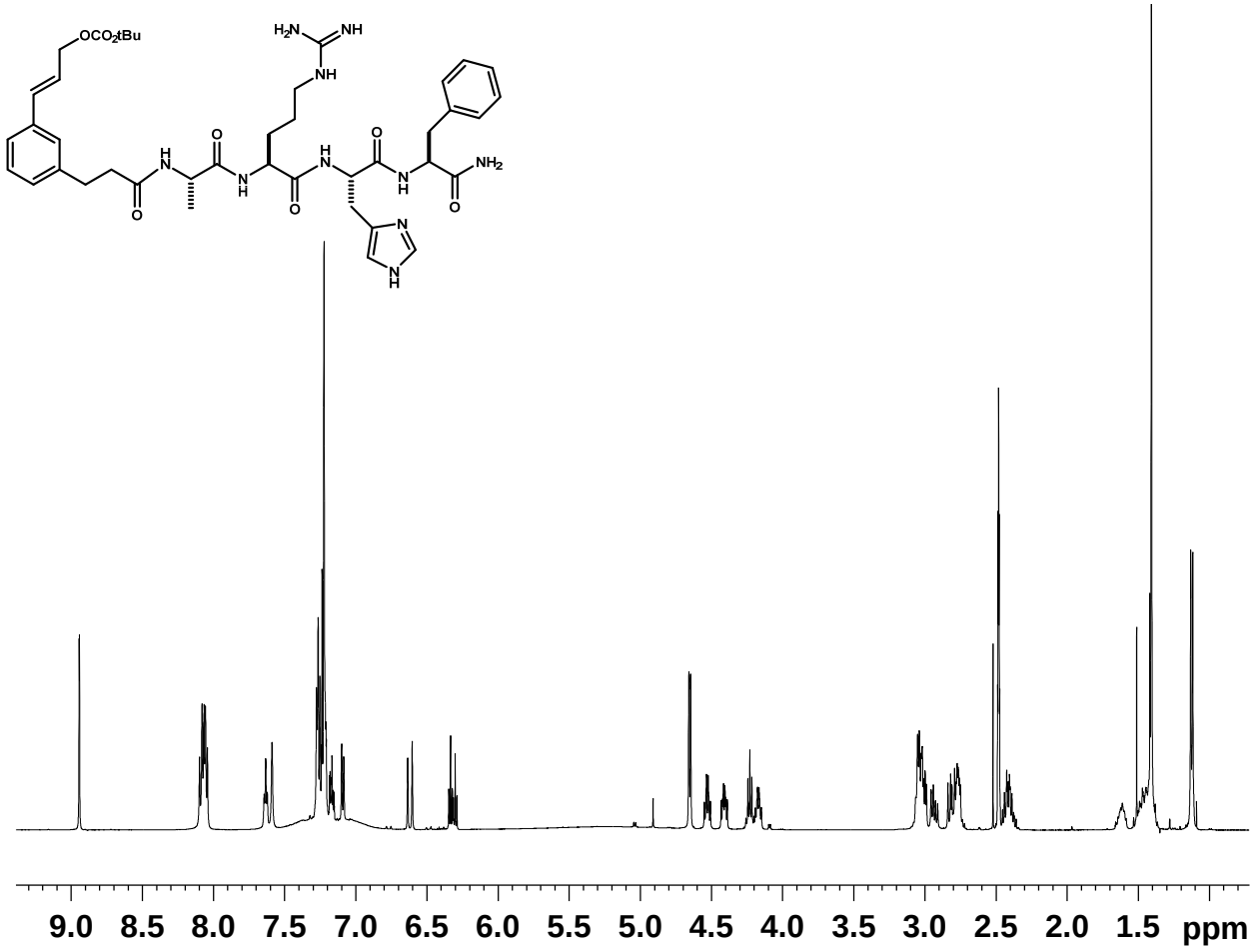



```
Current Data Parameters
NAME          ICON-W-B5
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20121013
Time              13.40
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES        0.152588 Hz
AQ            3.2767999 sec
RG                   11
DW               50.000 usec
DE               10.00 usec
TE               298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300000 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

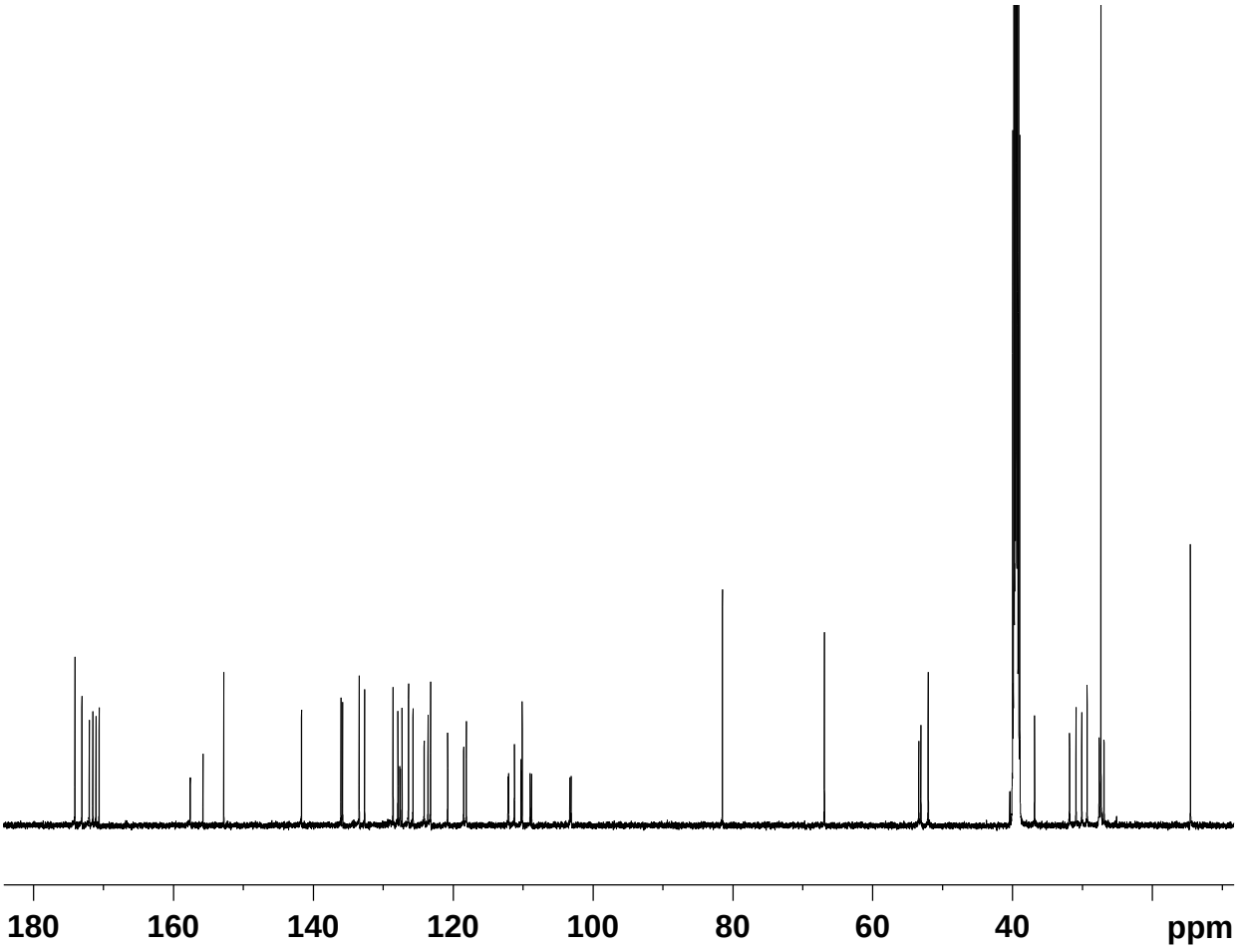



```
Current Data Parameters
NAME          ICON-W-B5
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                131072
SF          125.7578519 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ala-Arg-His-Phe-NH$_2$ (S25):

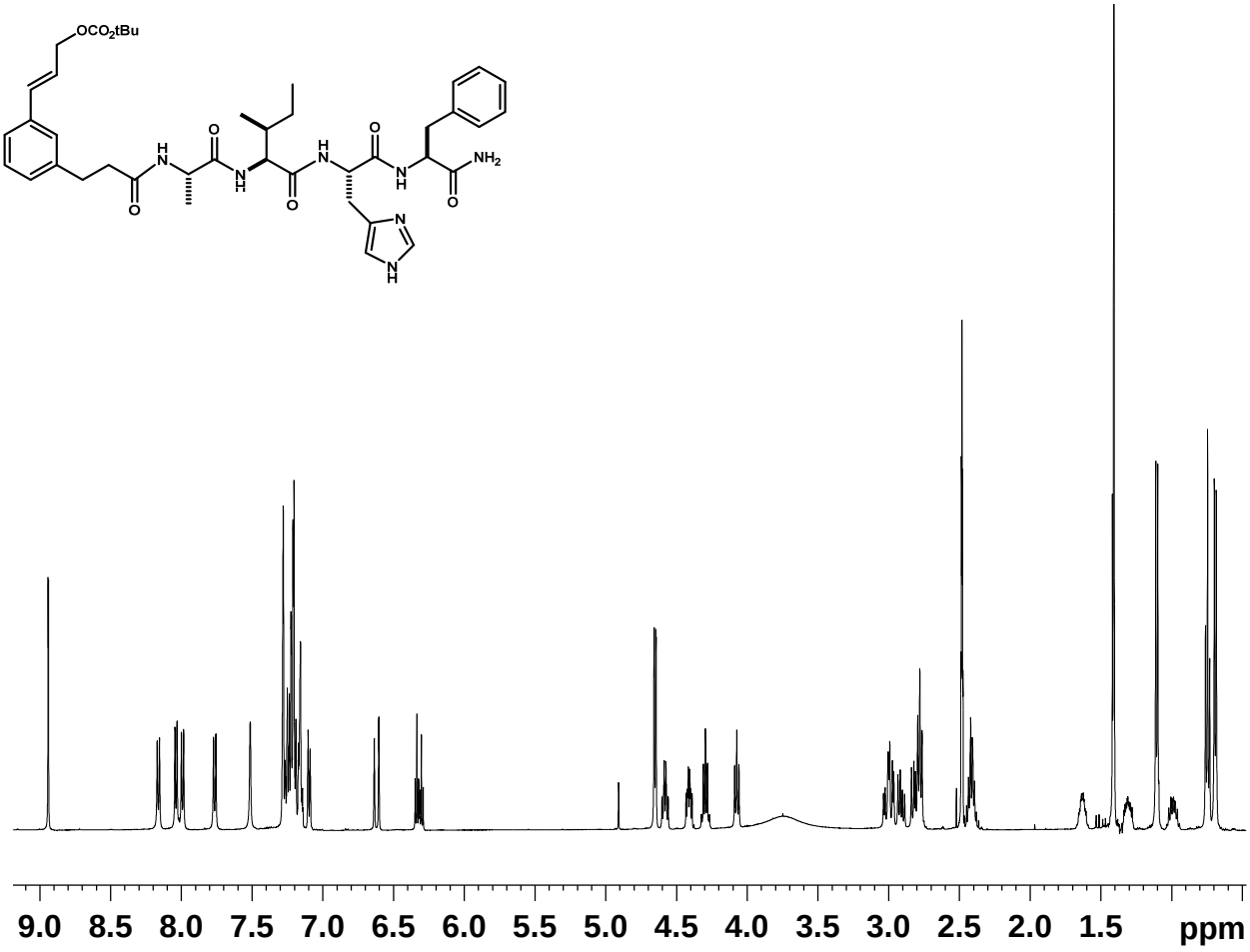



```
Current Data Parameters
NAME              HIS_A5
EXPNO                 10
PROCNO                 1

F2 - Acquisition Parameters
Date_           20121130
Time               17.23
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH            10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                    11
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         500.1330008 MHz
NUC1                 1H
P1                10.00 usec
PLW1         13.50000000 W

F2 - Processing parameters
SI                 65536
SF           500.1300146 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.00
```

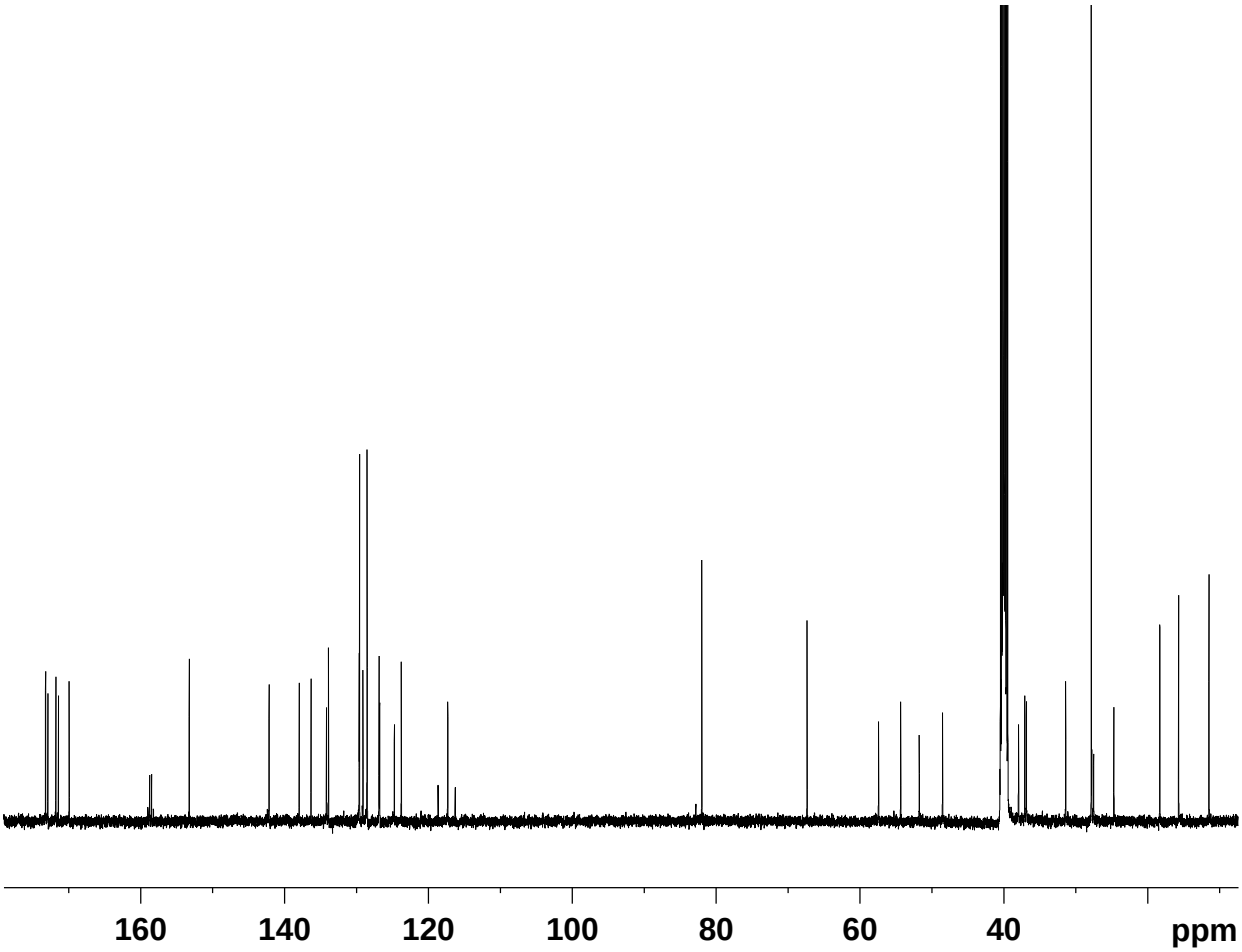



```
Current Data Parameters
NAME          ICON-W-A5
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                131072
SF          125.7578519 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

Acyclic-Ala-Ile-His-Phe-NH_2 (S26):

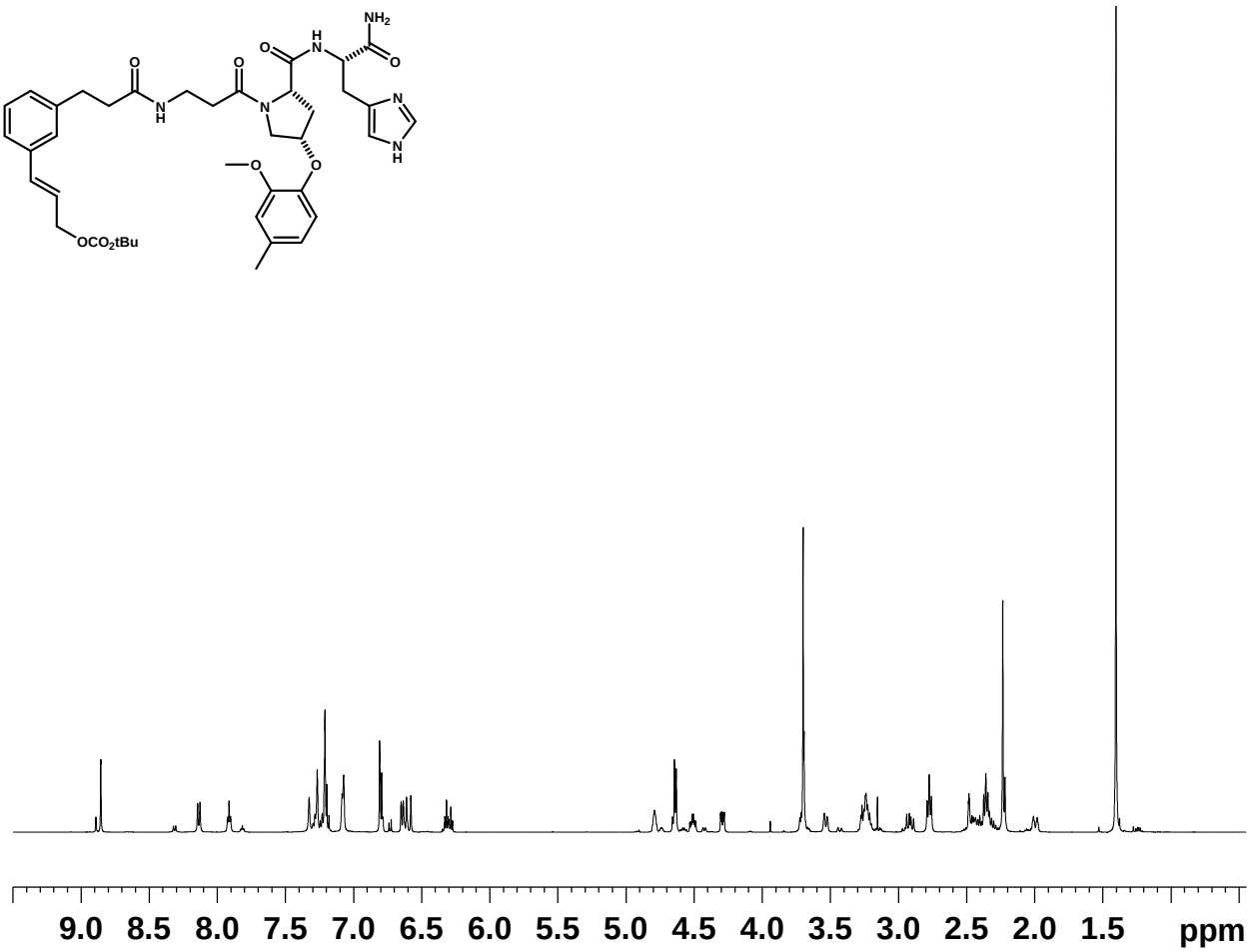



```
Current Data Parameters
NAME             HIS_A6
EXPNO                10
PROCNO                1

F2 - Acquisition Parameters
Date_          20121130
Time               17.41
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH            10000.000 Hz
FIDRES             0.152588 Hz
AQ             3.2767999 sec
RG                    11
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1             2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1          500.1330008 MHz
NUC1                  1H
P1                 10.00 usec
PLW1          13.50000000 W

F2 - Processing parameters
SI                 65536
SF            500.1300146 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.00
```

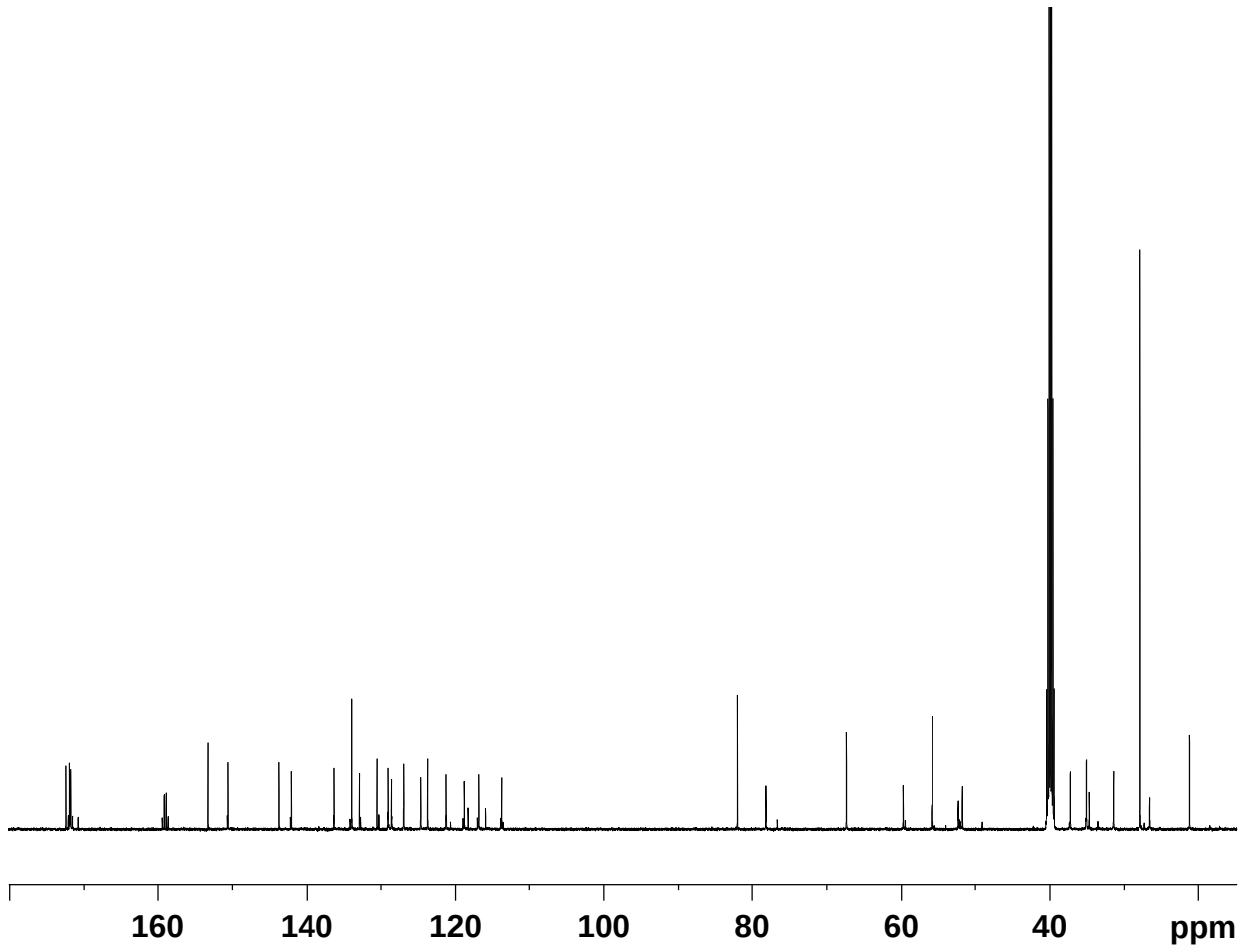



```
Current Data Parameters
NAME          ICON_HISA6
EXPNO                 10
PROCNO                 1

F2 - Acquisition Parameters
Date_           20121201
Time               17.52
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                 65536
SOLVENT             DMSO
NS                    64
DS                     2
SWH            31250.000 Hz
FIDRES             0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW                16.000 usec
DE                18.00 usec
TE                298.0 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1          125.7722511 MHz
NUC1                 13C
P1                 9.63 usec
PLW1          23.00000000 W

======== CHANNEL f2 ========
SFO2          500.1330008 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2          13.50000000 W
PLW12          0.21094000 W
PLW13          0.13500001 W

F2 - Processing parameters
SI                131072
SF            125.7577892 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

Acyclic-β-Ala-Pro[4-(2-methoxy-4-methylphenoxy)]-His (S27):

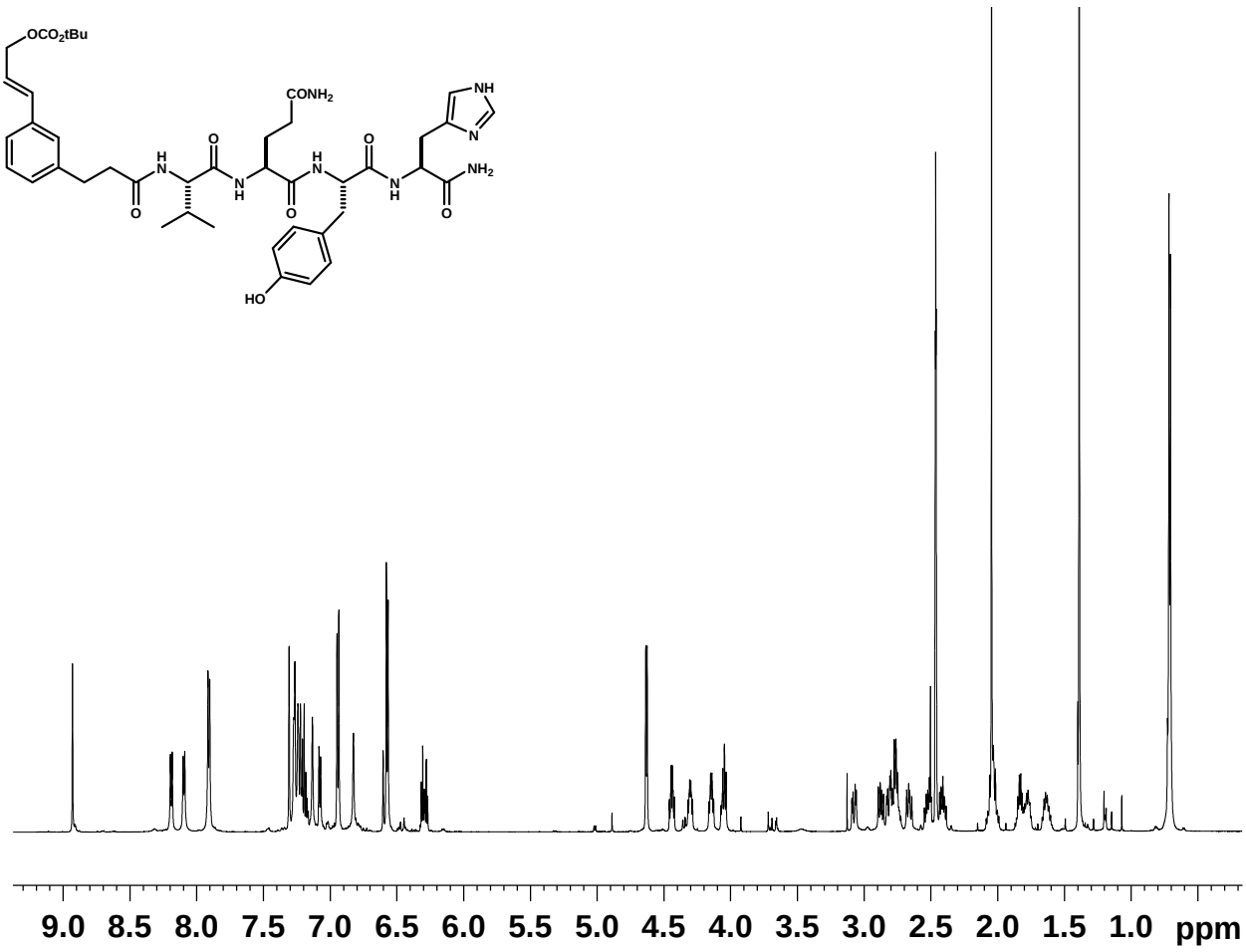



```
Current Data Parameters
NAME           KL-4-205
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20120507
Time              19.27
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                29.99
DW               50.000 usec
DE               10.00 usec
TE                296.0 K
D1            2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB       0
LB                0.30 Hz
GB        0
PC                1.00
```

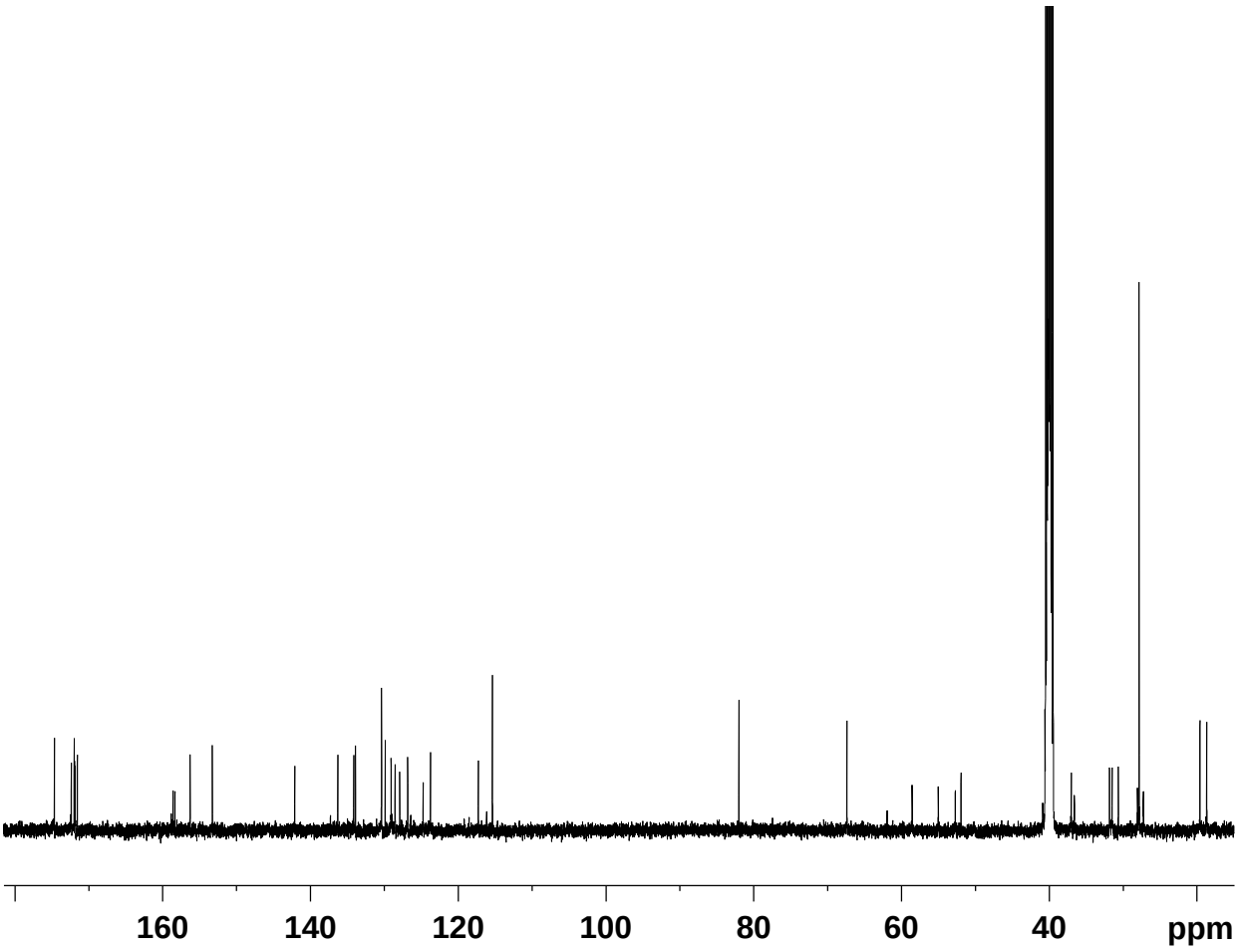



```
Current Data Parameters
NAME           KL-4-205
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40
```

Acyclic-Val-Gln-Tyr-His-NH$_2$ (18):

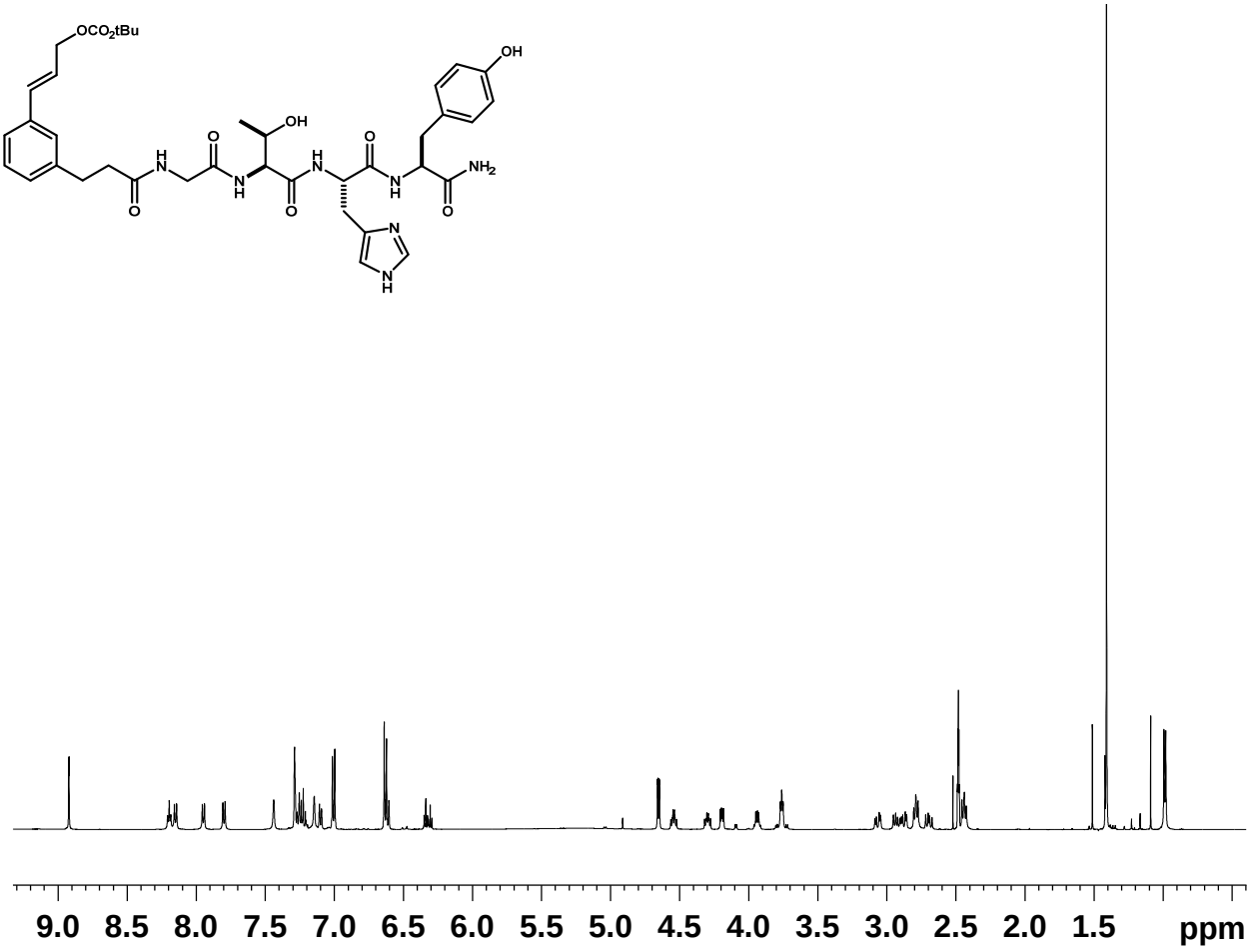



```
Current Data Parameters
NAME      KL-5-151_AV600
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130429
Time               17.41
INSTRUM            av600
PROBHD   5 mm TBI5
PULPROG            zgpr
TD                65536
SOLVENT            DMSO
NS                   32
DS                    0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                 90.5
DW               40.400 usec
DE                6.50 usec
TE               293.9 K
D1           2.00000000 sec
D12          0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 9.75 usec
PL1               -2.00 dB
PL9               52.20 dB
PL1W        39.81071854 W
PL9W         0.00015136 W
SFO1        600.1320825 MHz

F2 - Processing parameters
SI                 65536
SF          600.1300273 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.40
```

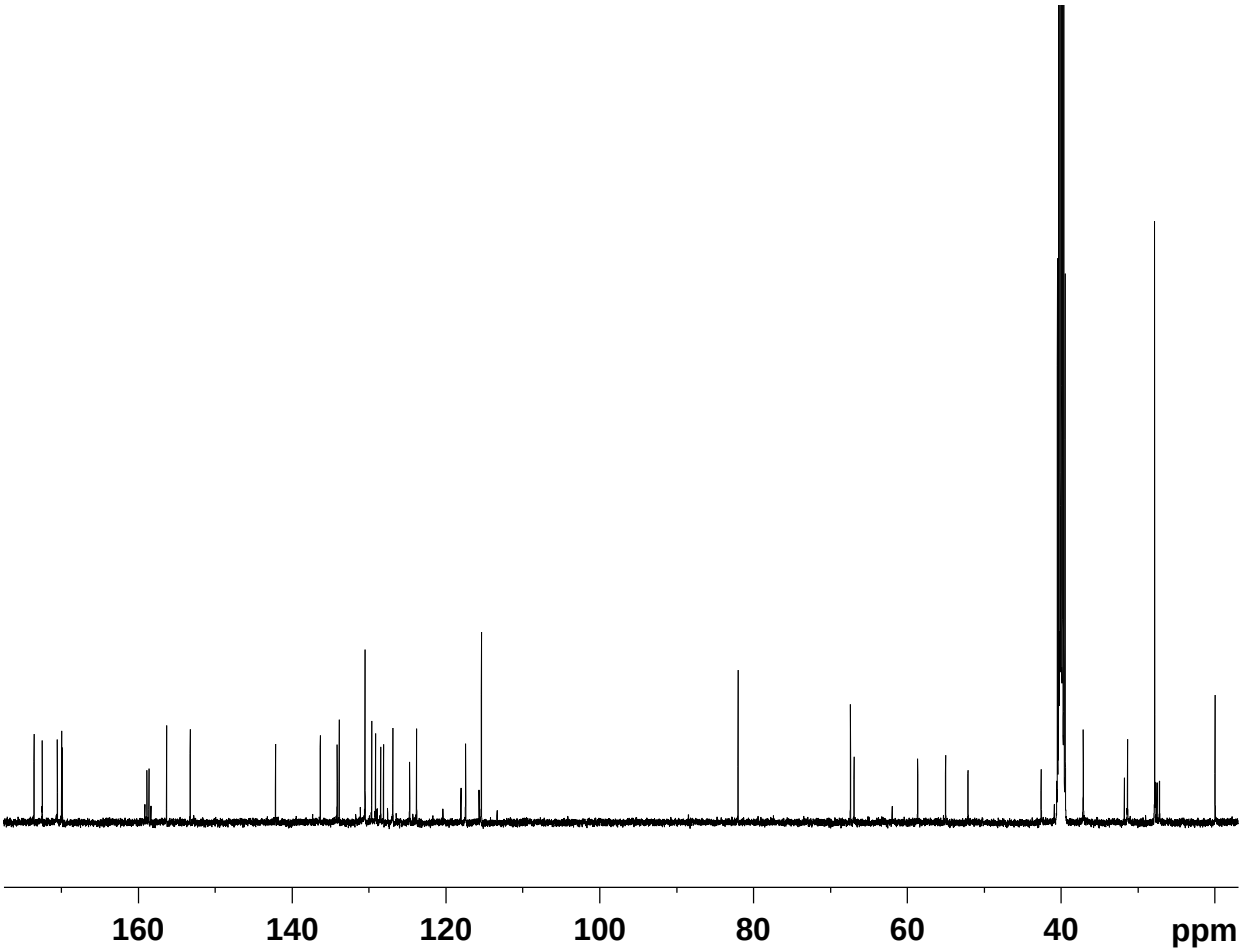



```
Current Data Parameters
NAME           KL-5-151
EXPNO                  3
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130424
Time               15.43
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                   126
DS                     2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE                18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                  13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2              80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

Acyclic-Gly-Thr-His-Tyr-NH$_2$ (S29):

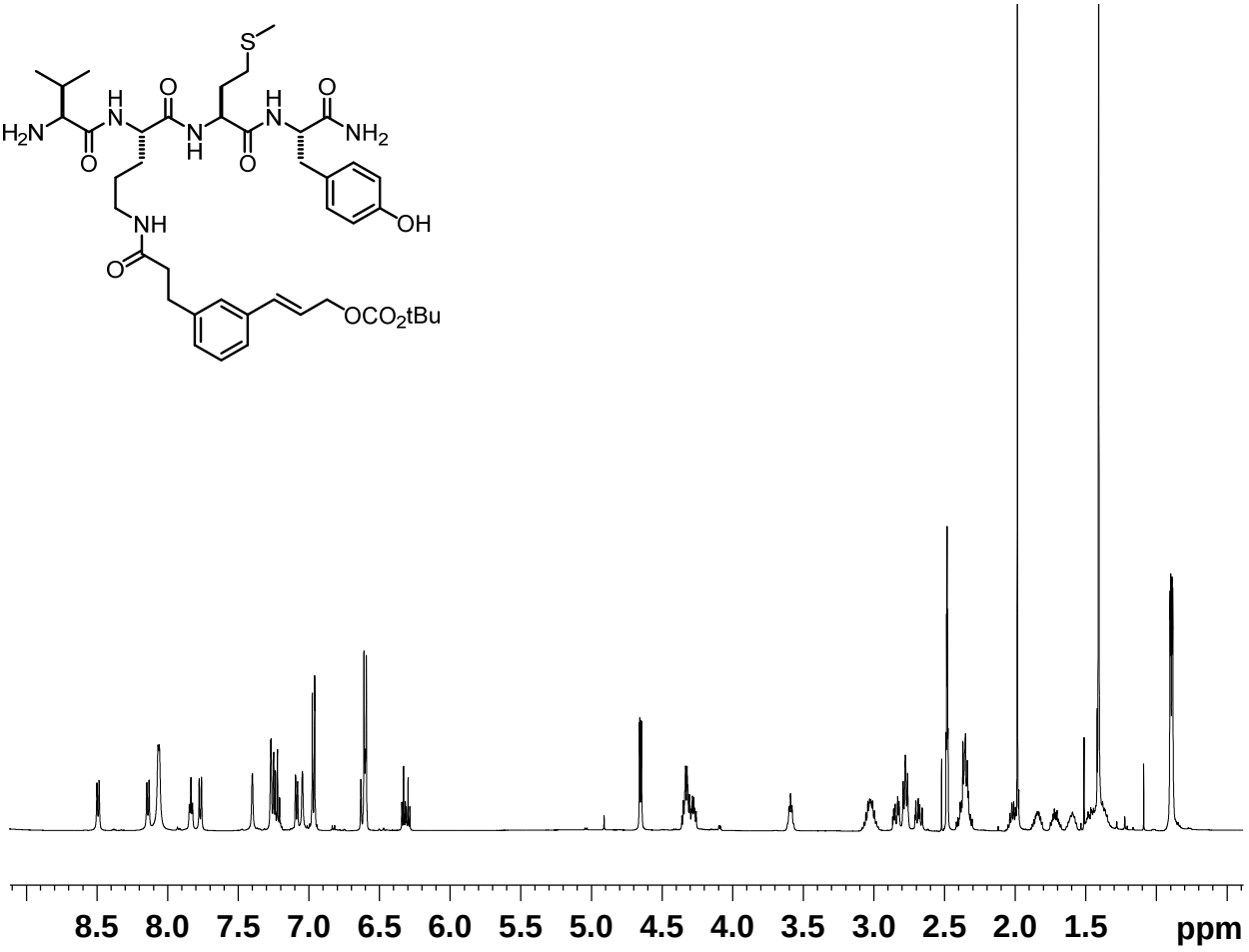



```
Current Data Parameters
NAME             HIS_A2
EXPNO                10
PROCNO                1

F2 - Acquisition Parameters
Date_          20121130
Time               17.28
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH            10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                    11
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         500.1330008 MHz
NUC1                   1H
P1                 10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                 65536
SF           500.1300146 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```

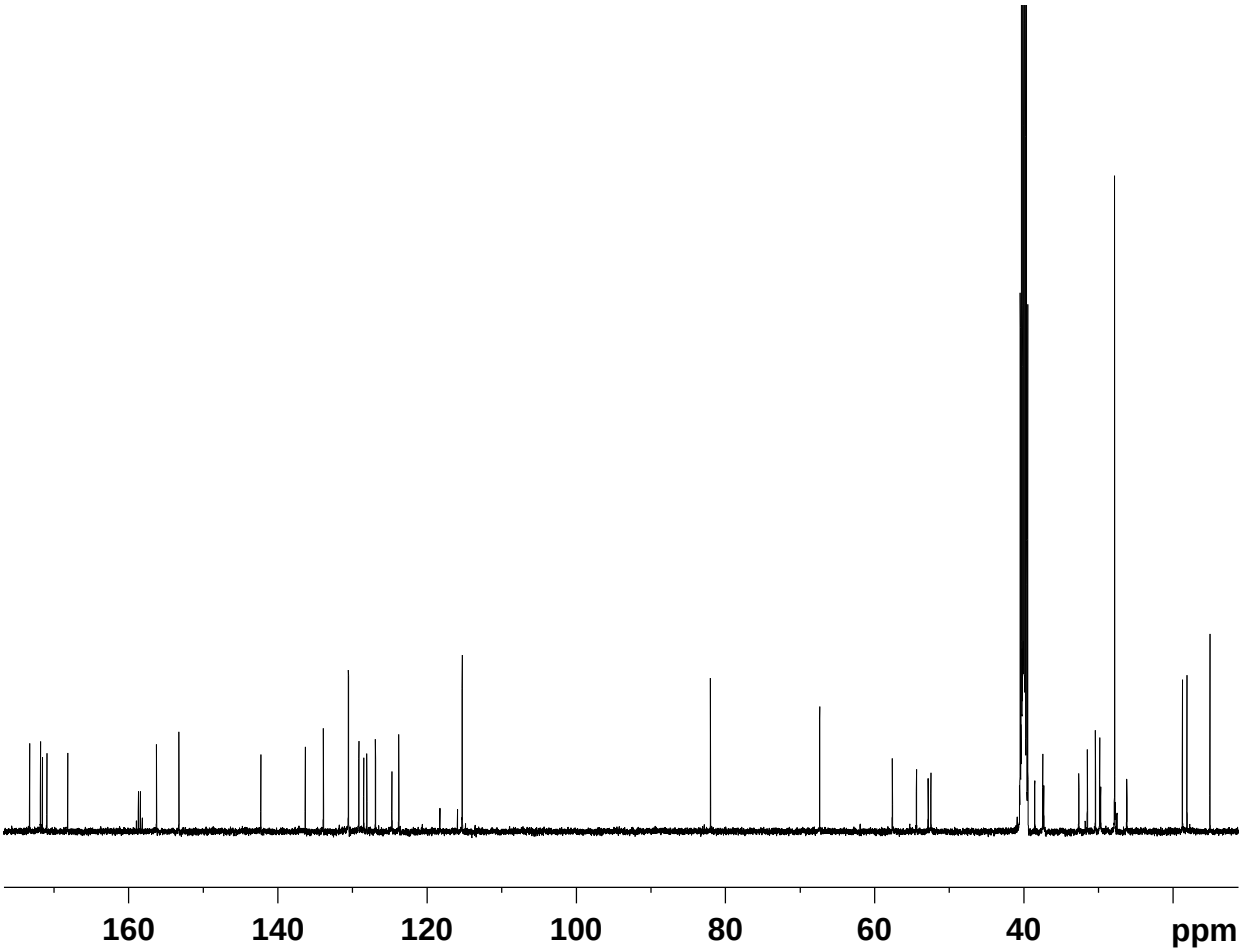



```
Current Data Parameters
NAME         ICON_HISA2
EXPNO                10
PROCNO                1

F2 - Acquisition Parameters
Date_          20121201
Time               17.27
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                 65536
SOLVENT             DMSO
NS                    64
DS                     2
SWH            31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW                16.000 usec
DE                18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         125.7722511 MHz
NUC1                  13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2         500.1330008 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI                131072
SF           125.7577892 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

Acyclic-Val-Orn-Met-Tyr (S30):

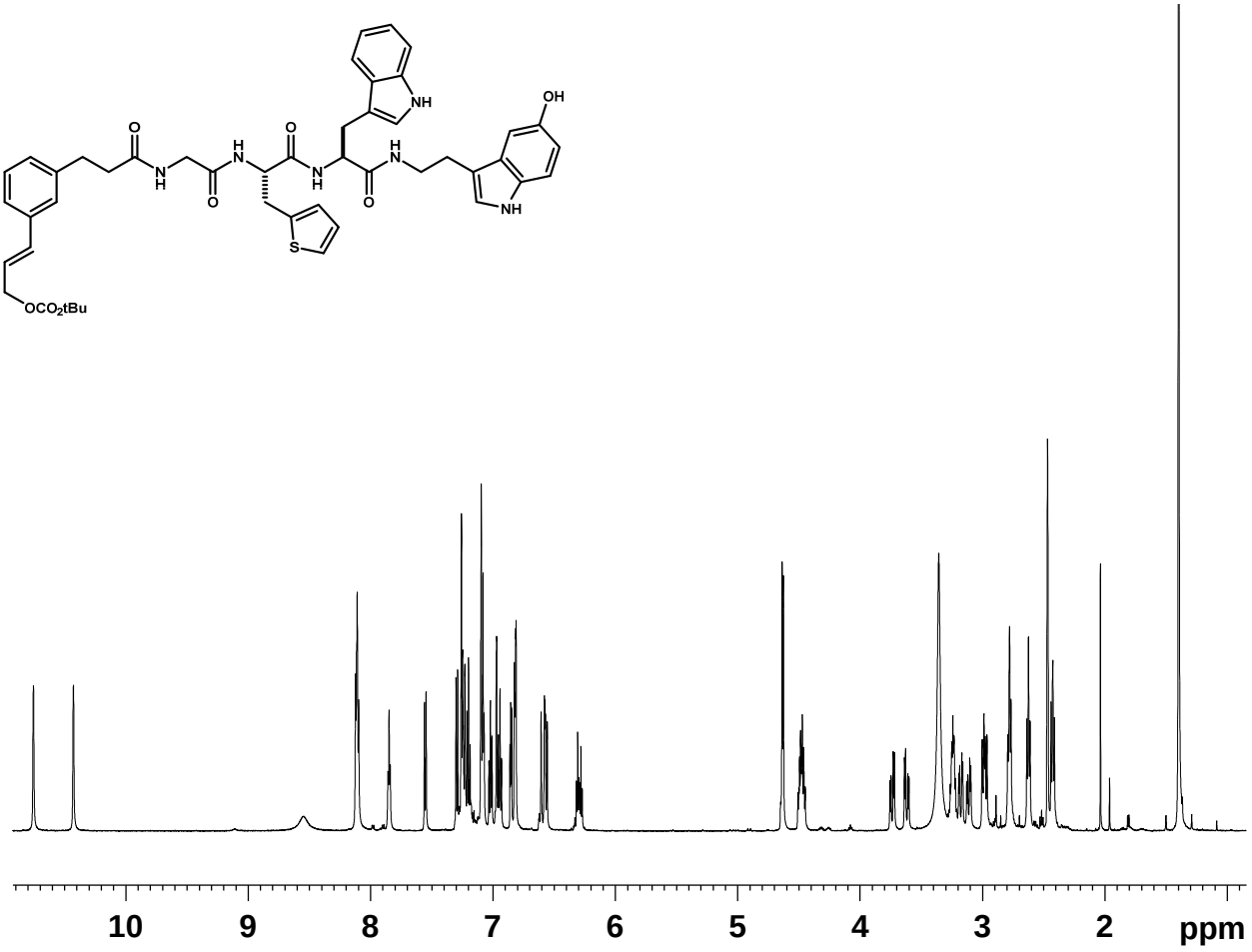



```
Current Data Parameters
NAME     KL-5-153_deprot
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20130409
Time               12.12
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                    11
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         500.1330008 MHz
NUC1                 1H
P1                10.00 usec
PLW1         13.50000000 W

F2 - Processing parameters
SI                 65536
SF           500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

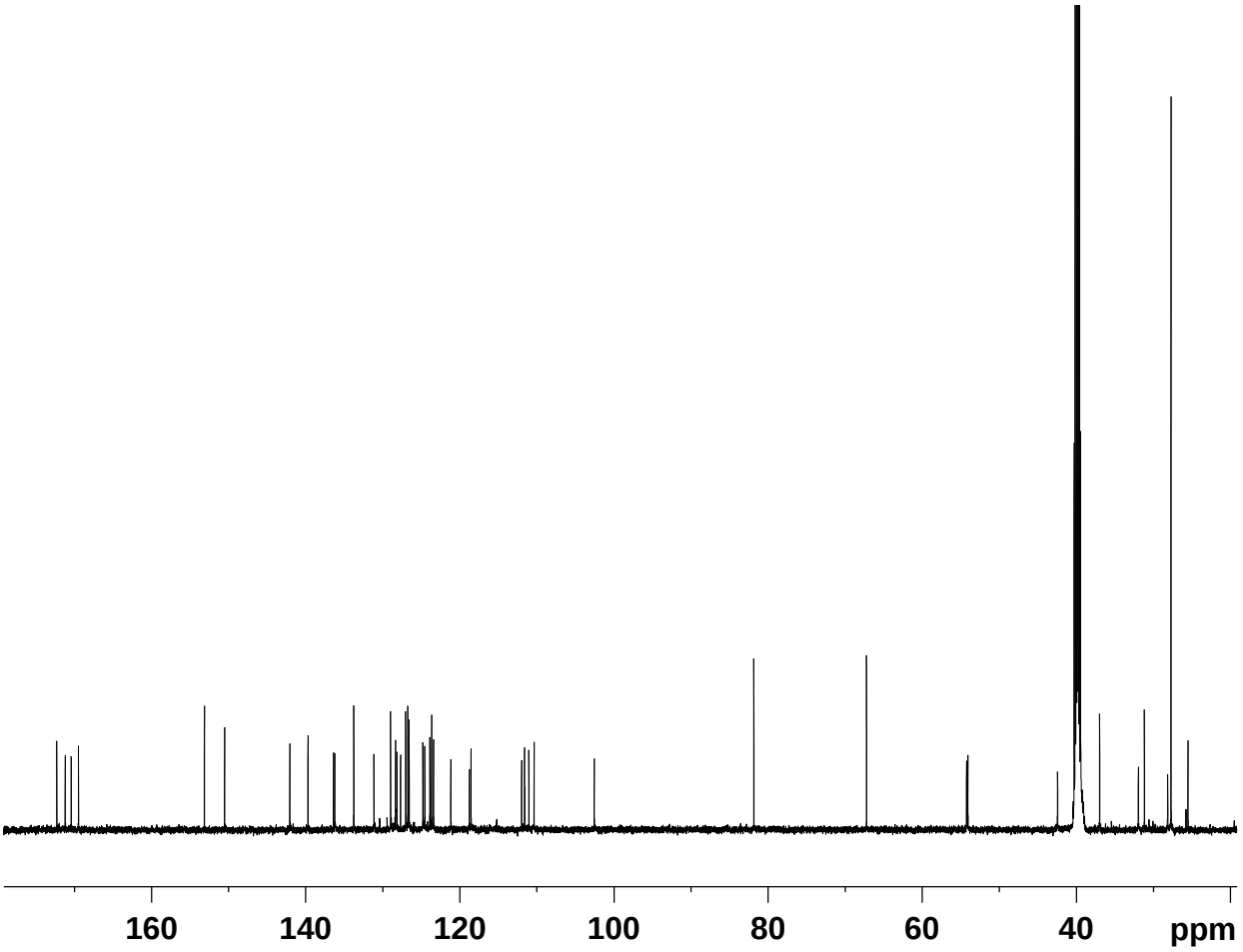



```
Current Data Parameters
NAME     KL-5-153_deprot
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_           20130409
Time               12.15
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                 65536
SOLVENT             DMSO
NS                    85
DS                     2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW               16.000 usec
DE                18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         125.7722511 MHz
NUC1                 13C
P1                 9.63 usec
PLW1         23.00000000 W

======== CHANNEL f2 ========
SFO2         500.1330008 MHz
NUC2                 1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2         13.50000000 W
PLW12         0.21094000 W
PLW13         0.13500001 W

F2 - Processing parameters
SI                131072
SF           125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Gly-Thi-Trp-5HT (S31):

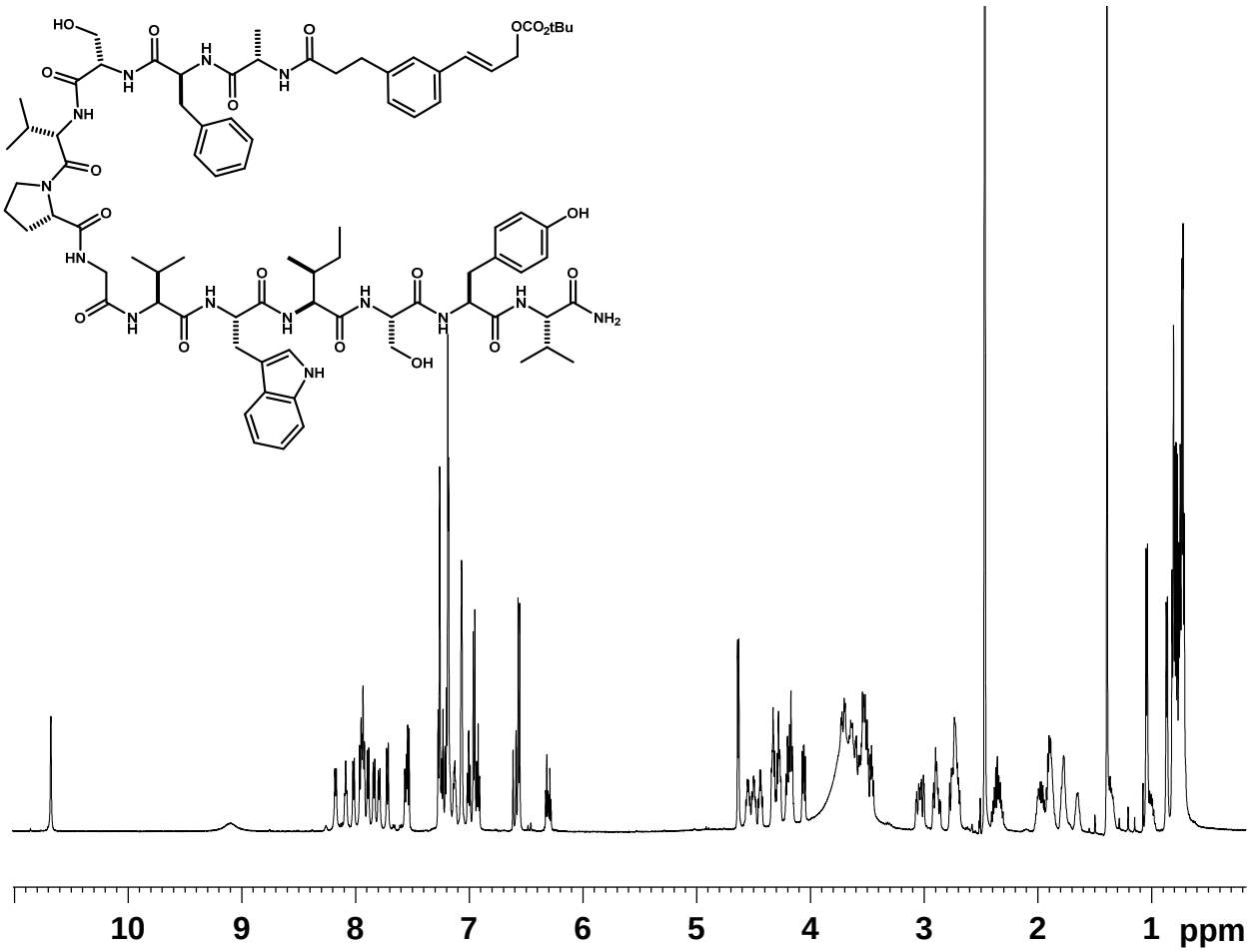



```
Current Data Parameters
NAME            KL-4-46
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20111012
Time              15.55
INSTRUM           av600
PROBHD   5 mm BB5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   4
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                90.5
DW              40.400 usec
DE               6.50 usec
TE              300.5 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

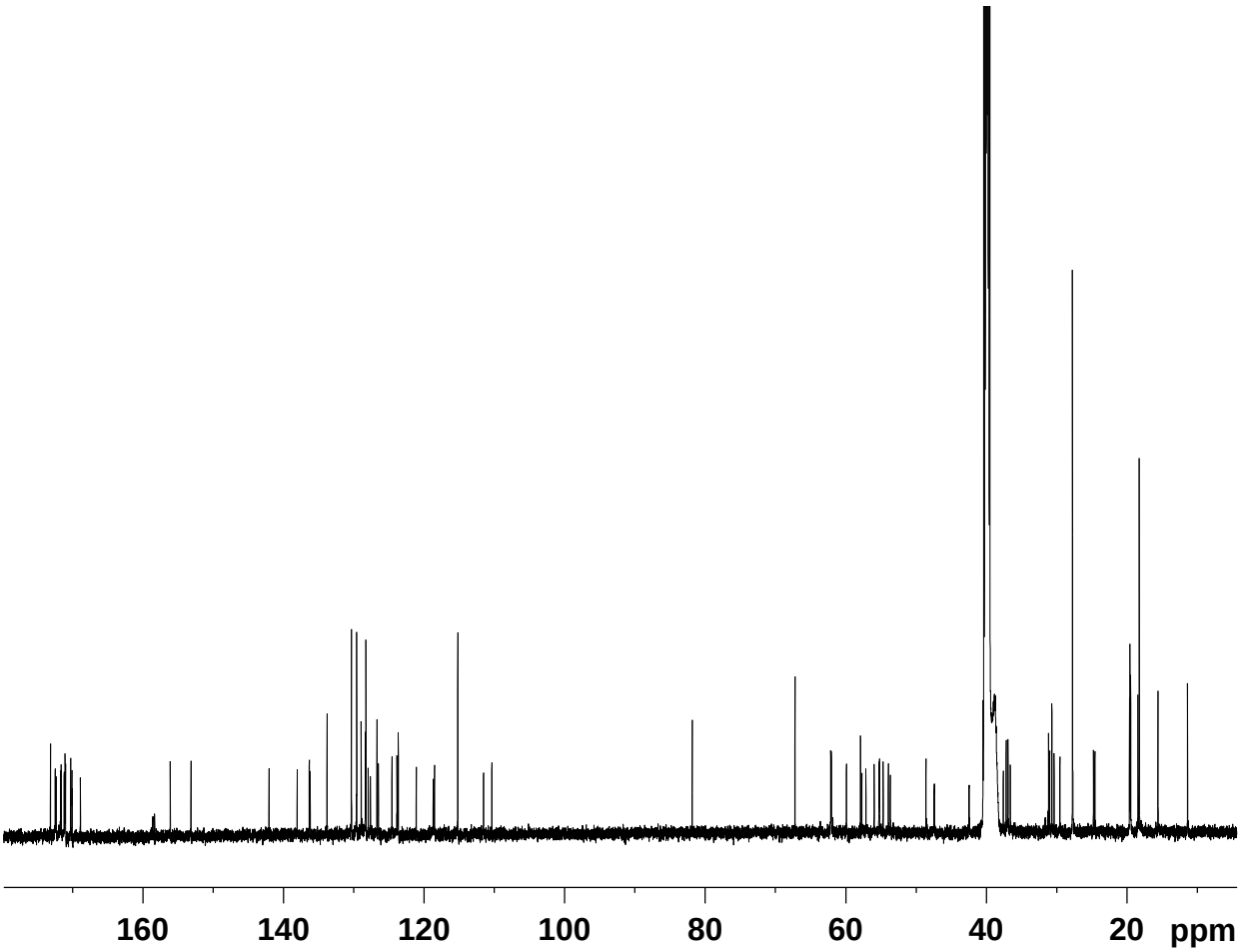



```
Current Data Parameters
NAME            KL-4-46
EXPNO                 3
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Ala-Phe-Ser-Val-Pro-Gly-Val-Trp-Ile-Ser-Tyr-Val (S32):

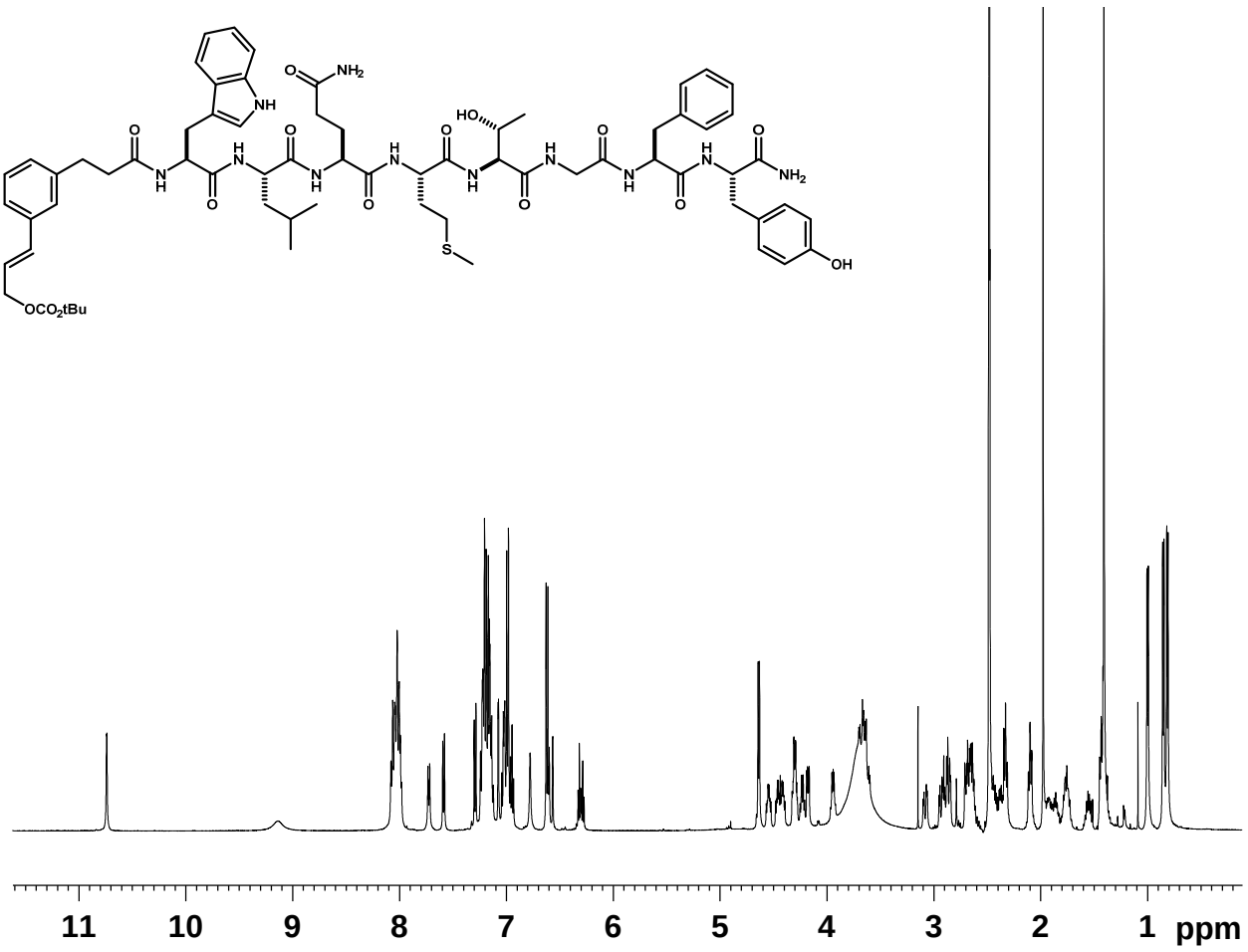



```
Current Data Parameters
NAME         KL-4-7_prep
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20110923
Time               14.35
INSTRUM            av600
PROBHD   5 mm TBI5
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                     8
DS                     0
SWH            12376.237 Hz
FIDRES             0.188846 Hz
AQ             2.6476543 sec
RG                   114
DW                40.400 usec
DE                 6.50 usec
TE                294.3 K
D1             2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 9.10 usec
PL1               -2.00 dB
PL1W         39.81071854 W
SFO1         600.1336008 MHz

F2 - Processing parameters
SI                 65536
SF           600.1300273 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.00
```

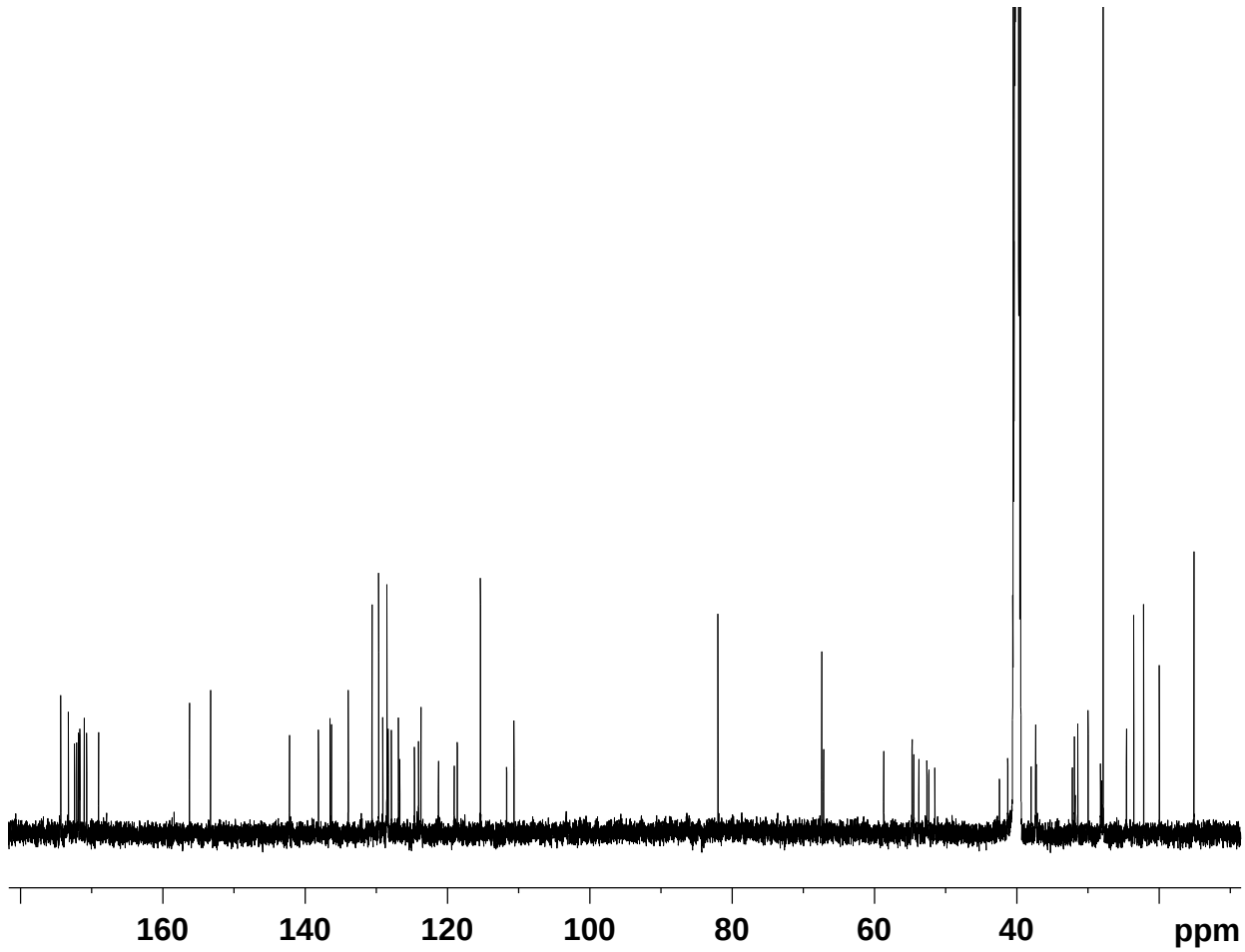



```
Current Data Parameters
NAME         KL-4-7_prep
EXPNO                  3
PROCNO                 1

F2 - Processing parameters
SI                 65536
SF           150.9028319 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

Acyclic-Trp-Leu-Gln-Met-Thr-Gly-Phe-Tyr (S33):

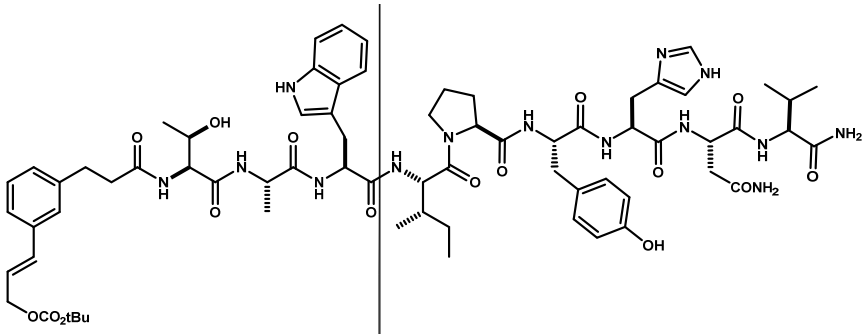



```
Current Data Parameters
NAME       KL-4-15d_F21
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20120730
Time               12.13
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH            10000.000 Hz
FIDRES          0.152588 Hz
AQ             3.2767999 sec
RG                202.91
DW                50.000 usec
DE                10.00 usec
TE                296.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300146 MHz
WDW                   EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

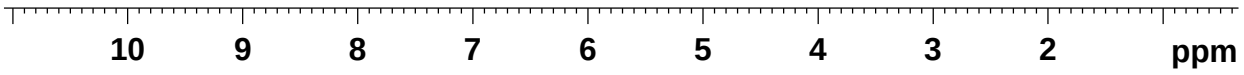


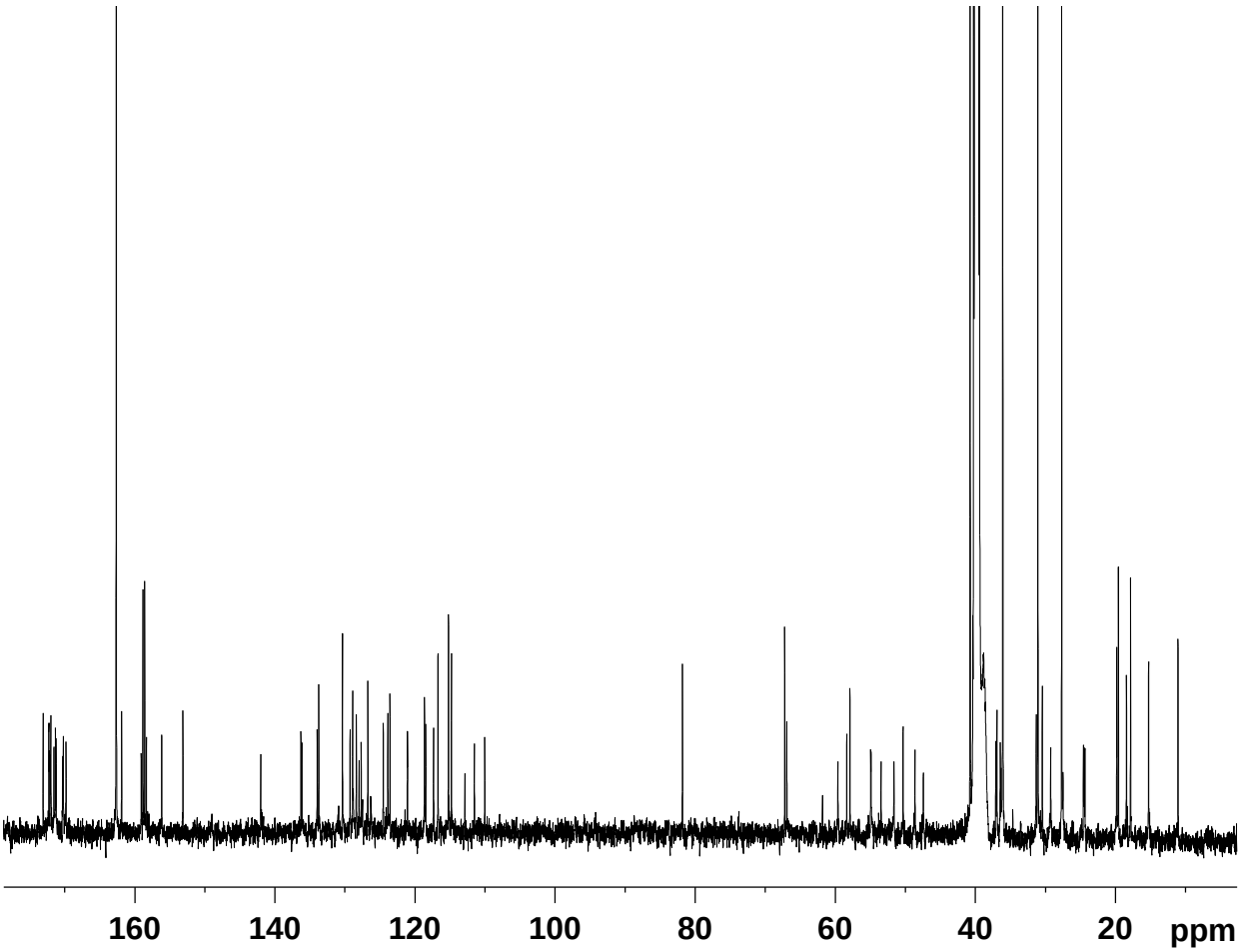

```
Current Data Parameters
NAME       KL-4-15d_F21
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                   EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Acyclic-Thr-Ala-Trp-Ile-Pro-Tyr-His-Asn-Val (S34):



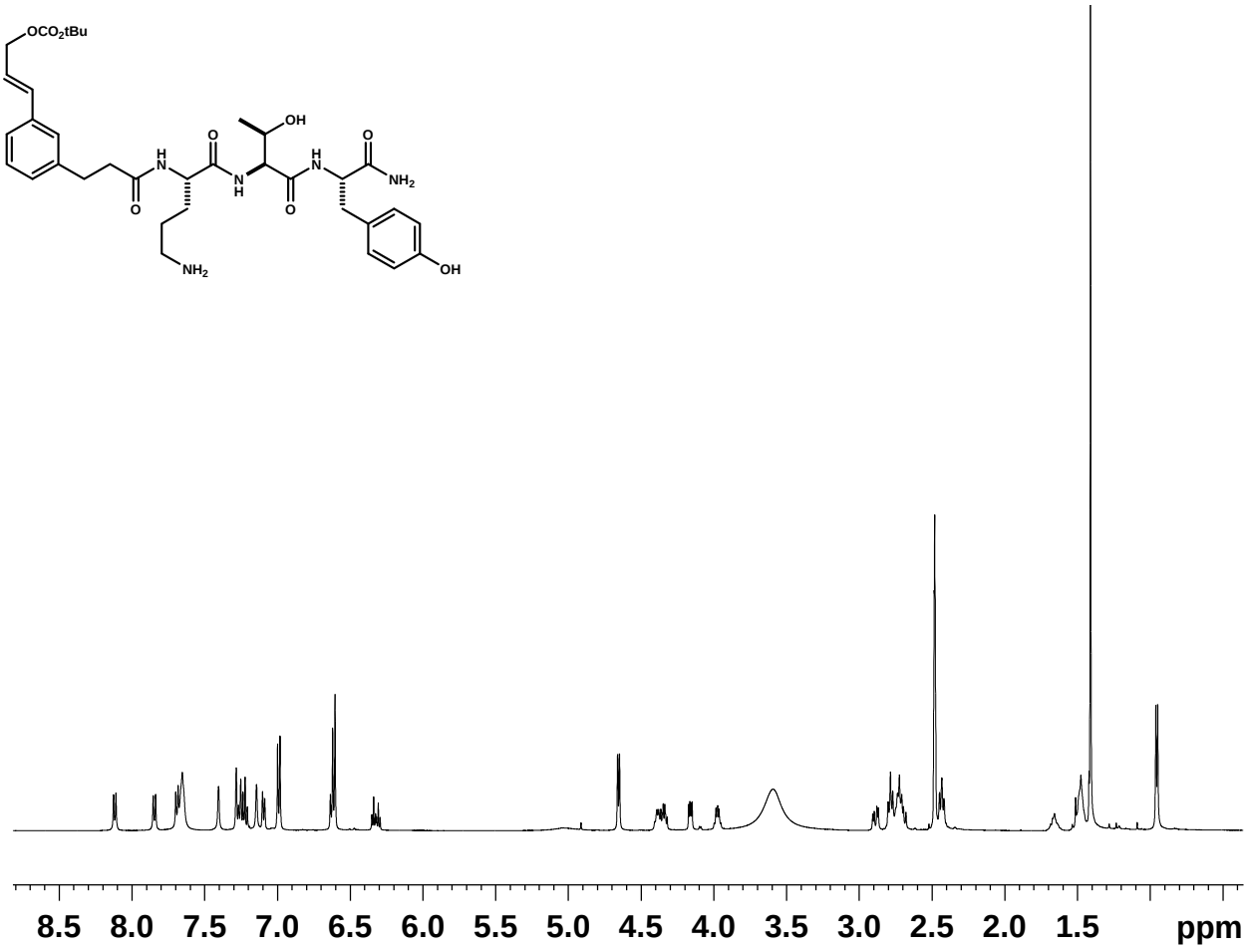

```
Current Data Parameters
NAME          KL-III-284
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20110829
Time               17.20
INSTRUM            av600
PROBHD   5 mm BB5
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                  90.5
DW                40.400 usec
DE                 6.50 usec
TE                294.5 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                14.00 usec
PL1               -1.00 dB
PL1W        31.62277603 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                 65536
SF          600.1300273 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```



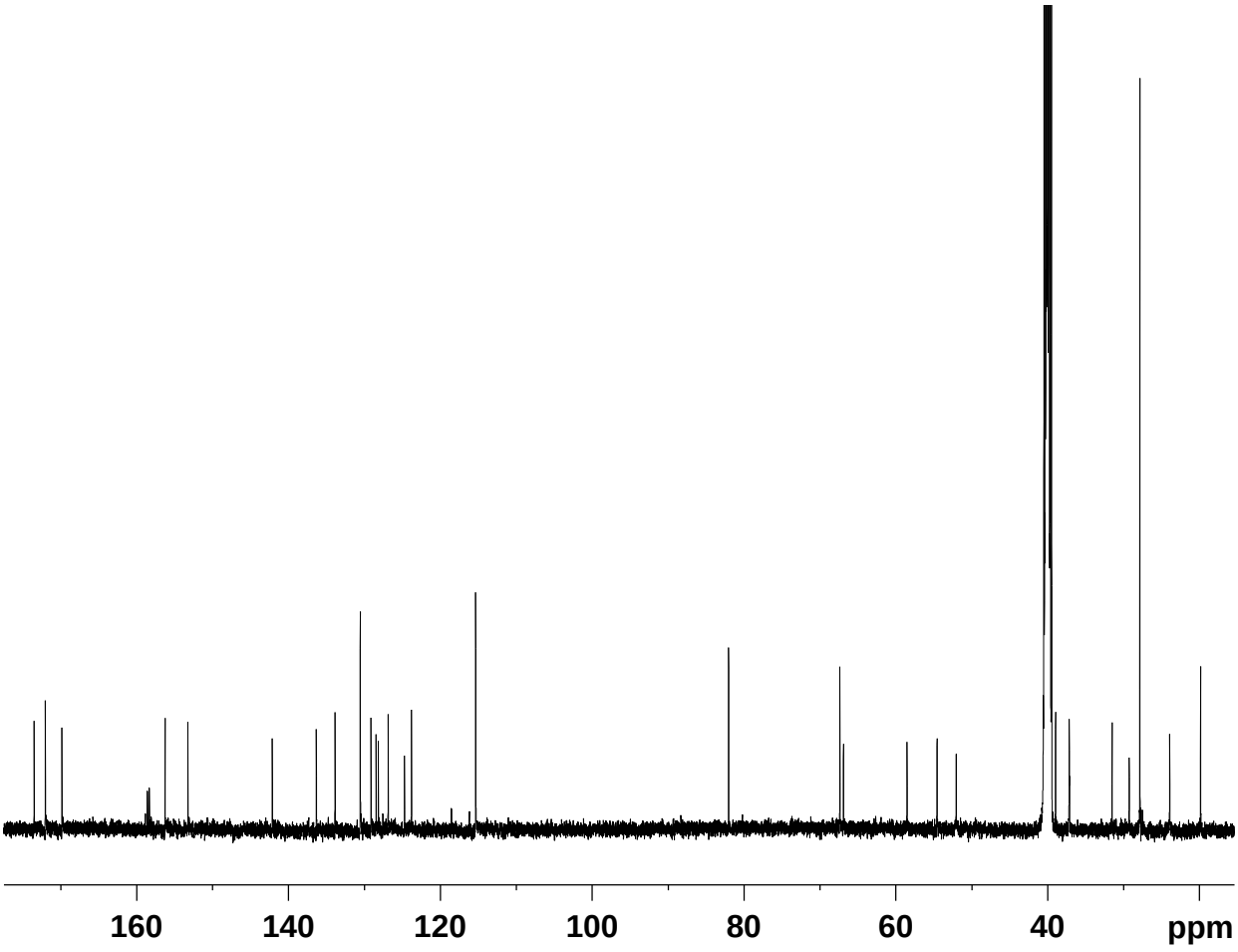



```
Current Data Parameters
NAME          KL-III-284
EXPNO                  2
PROCNO                 1

F2 - Processing parameters
SI                 65536
SF          150.9028319 MHz
WDW                   EM
SSB      0
LB                 3.00 Hz
GB       0
PC                 1.40
```

Acyclic-Orn-Thr-Tyr (S35):



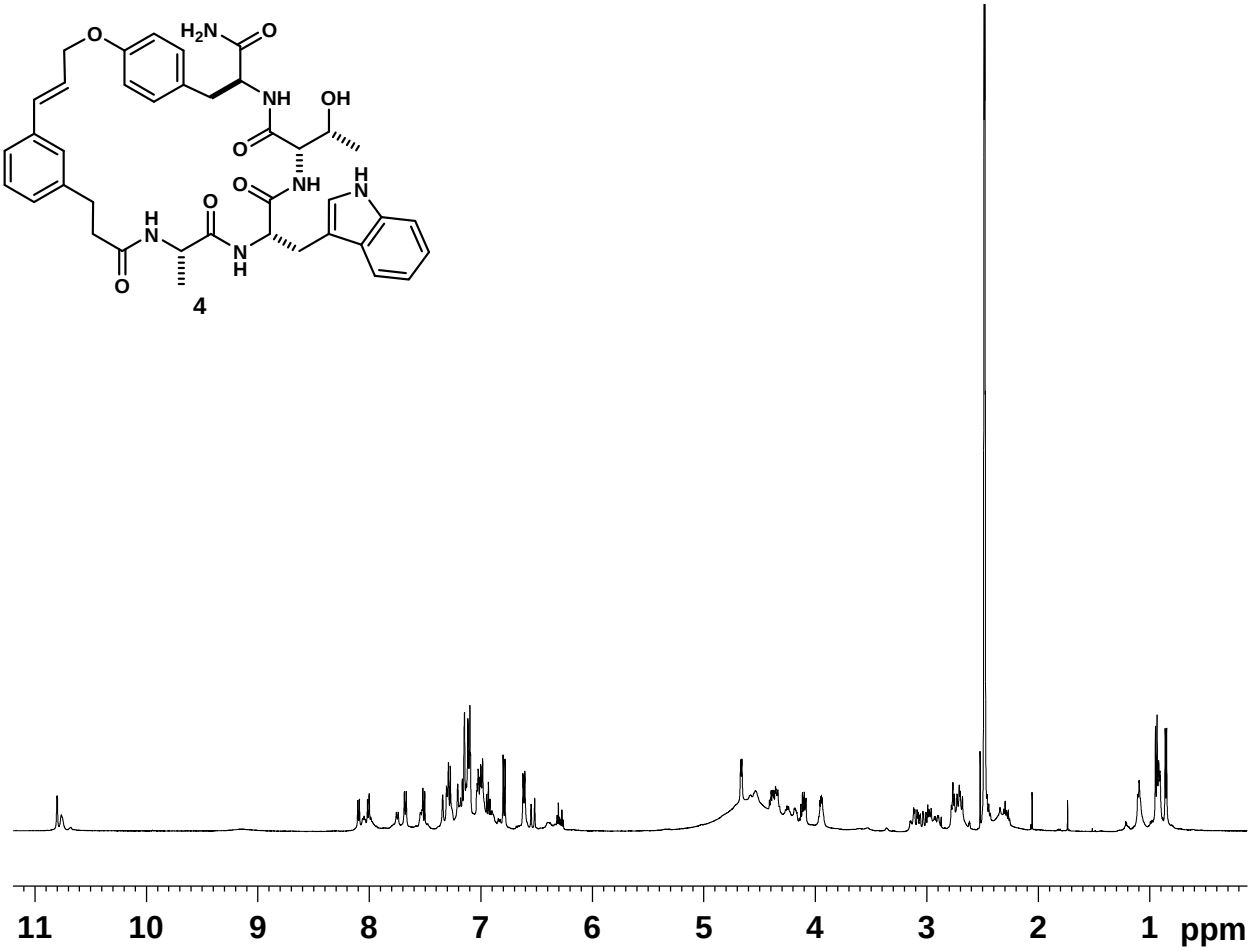

```
Current Data Parameters
NAME            TR4-128
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130322
Time              20.59
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES        0.152588 Hz
AQ            3.2767999 sec
RG                   11
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                 EM
SSB      0
LB                0.10 Hz
GB       0
PC                1.00
```



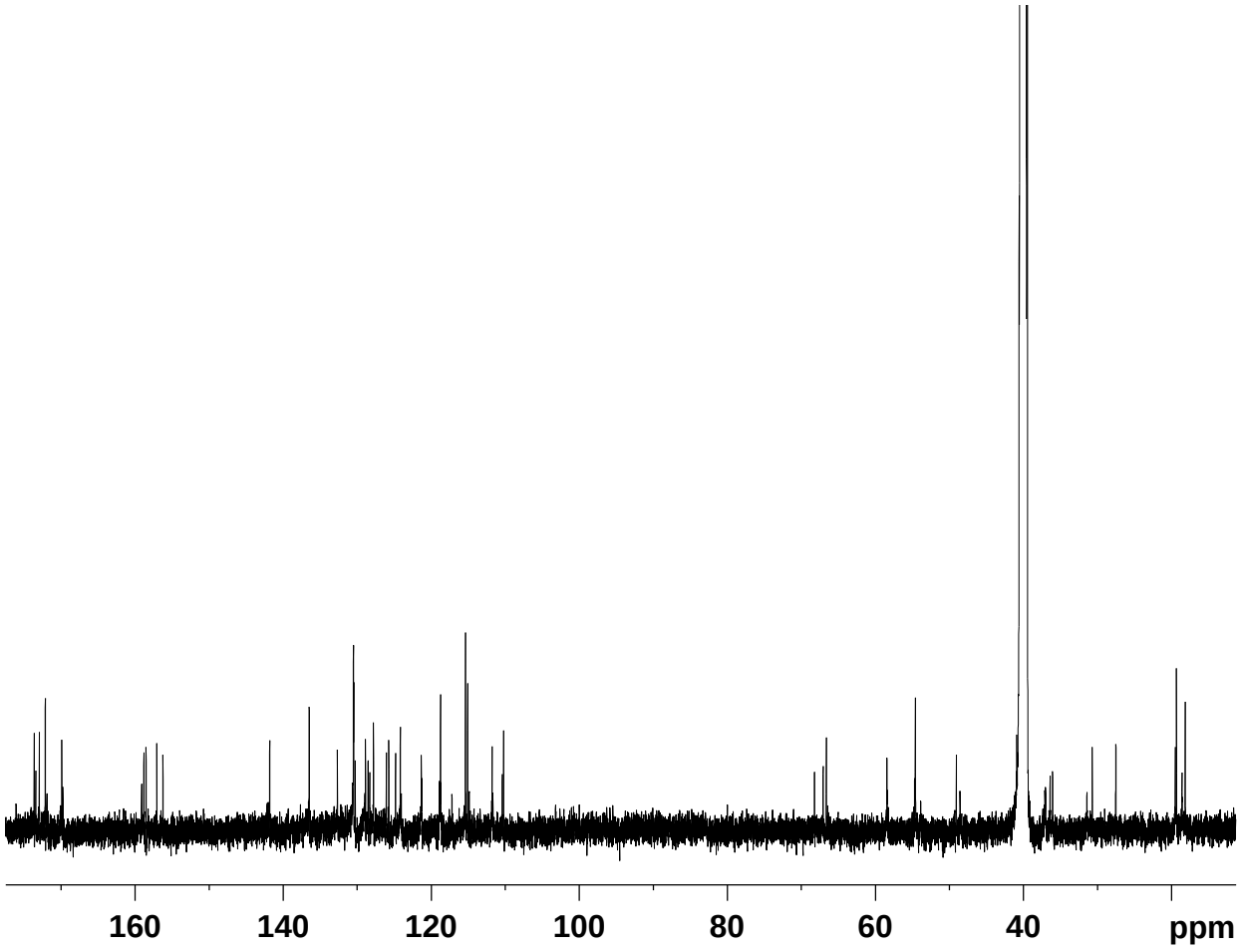

```
Current Data Parameters
NAME            TR4-128
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130322
Time              21.02
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  128
DS                    2
SWH           31250.000 Hz
FIDRES        0.476837 Hz
AQ            1.0485760 sec
RG                15.53
DW               16.000 usec
DE               18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                1H
CPDPRG[2        waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI              131072
SF          125.7577892 MHz
WDW                 EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.00
```

Cyclic-Ala-Trp-Thr-Tyr (4):

4



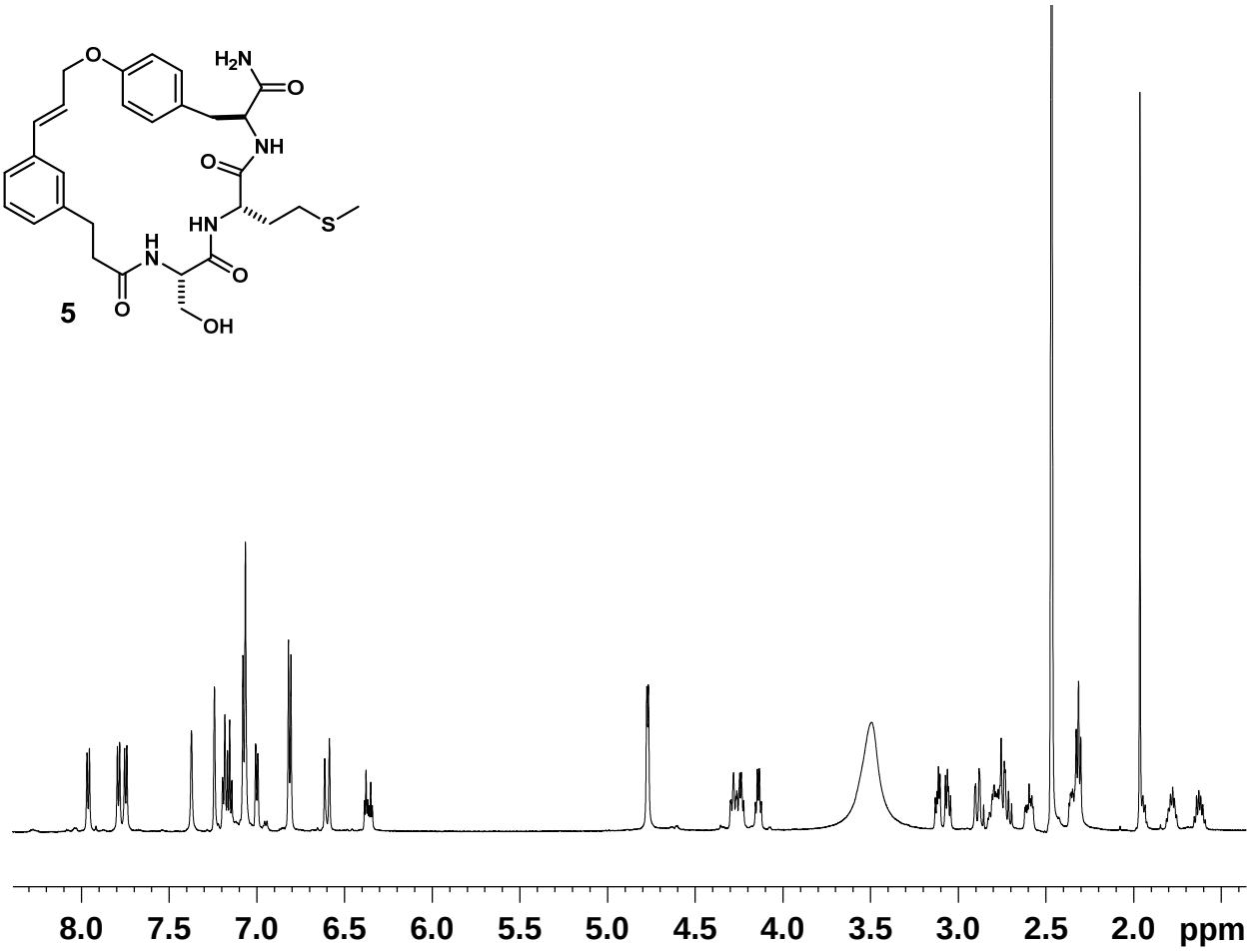

```
Current Data Parameters
NAME      KL-4-55_CHECK
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20111019
Time               19.56
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH          10000.000 Hz
FIDRES         0.152588 Hz
AQ           3.2767999 sec
RG                 22.82
DW                50.000 usec
DE                10.00 usec
TE                301.0 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300146 MHz
WDW                   EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



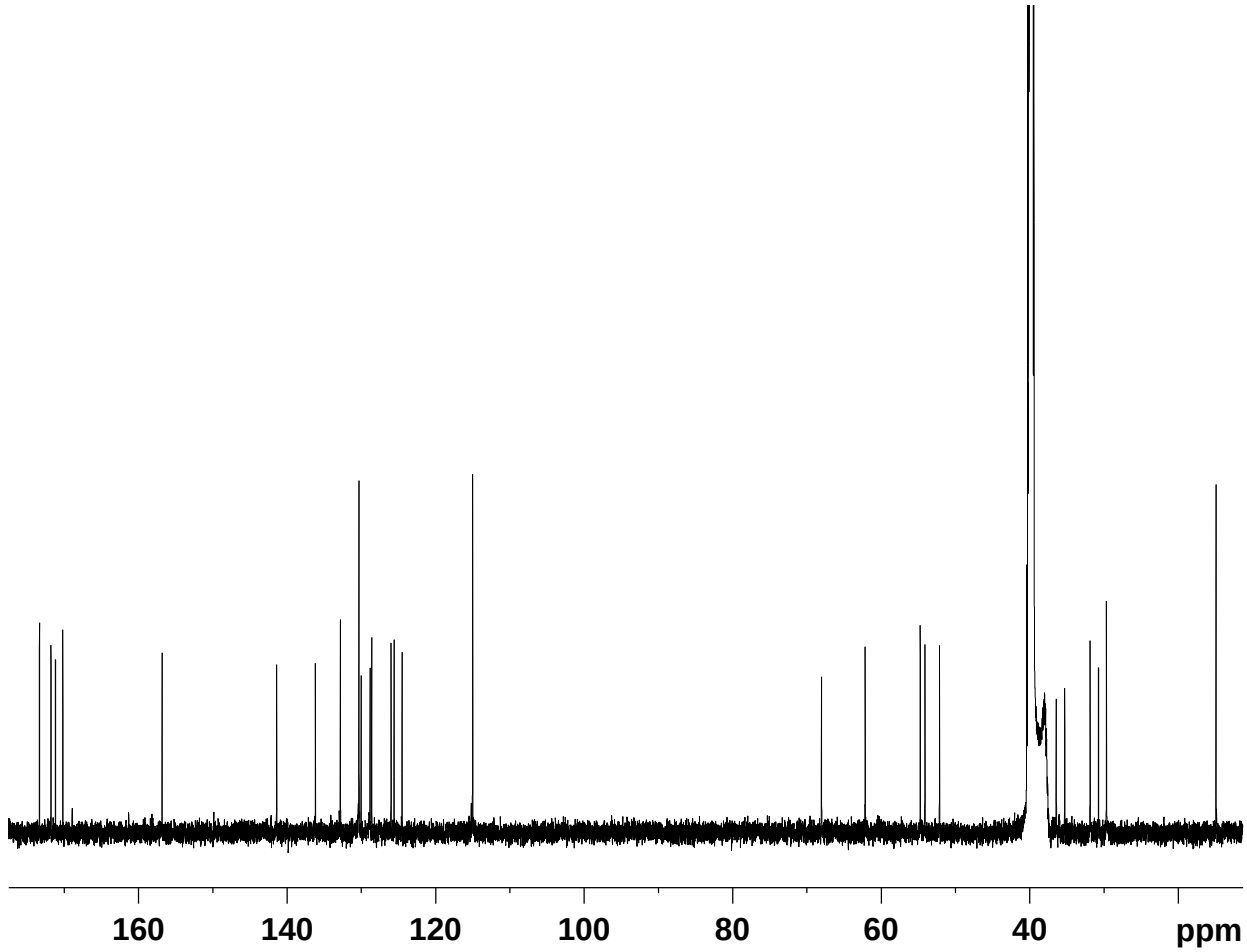

```
Current Data Parameters
NAME      KL-4-55_CHECK
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                   EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.00
```

Cyclic-Ser-Met-Tyr (5):

5



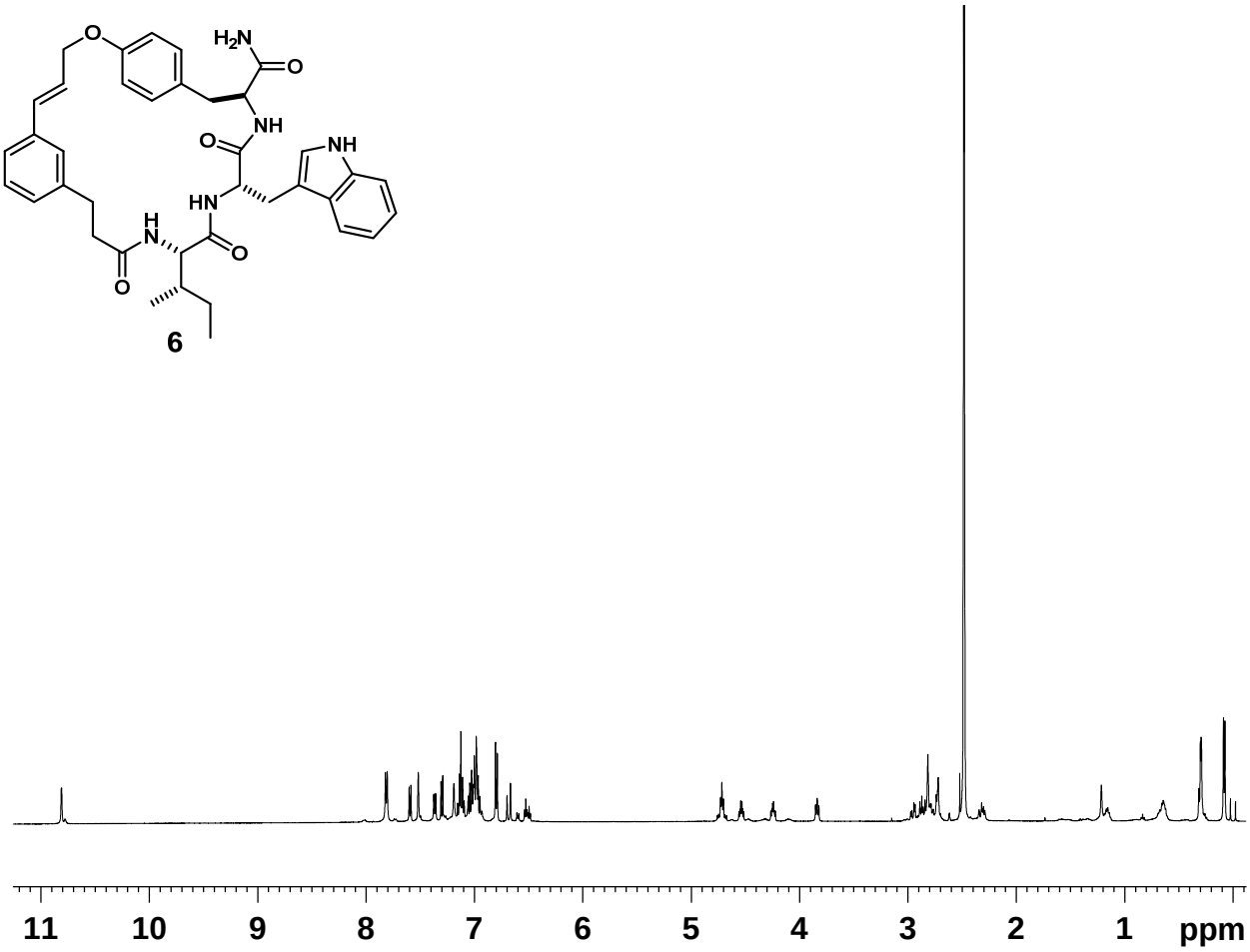

```
Current Data Parameters
NAME            KL-4-16
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110926
Time              16.58
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH          12376.237 Hz
FIDRES        0.188846 Hz
AQ           2.6476543 sec
RG                 181
DW              40.400 usec
DE               6.50 usec
TE              294.0 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1                9.10 usec
PL1              -2.00 dB
PL1W       39.81071854 W
SFO1       600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB               0.30 Hz
GB       0
PC               1.00
```



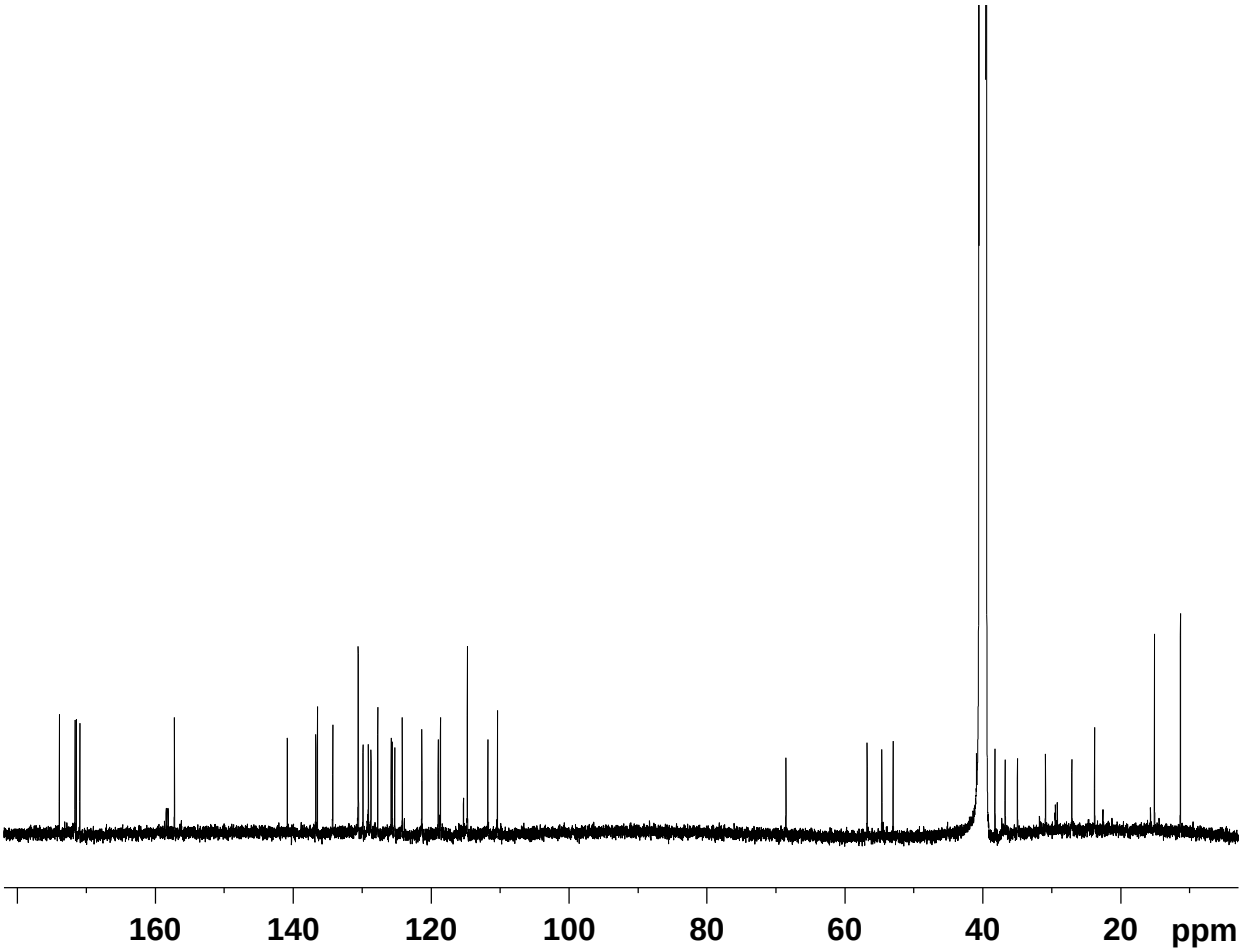

```
Current Data Parameters
NAME            KL-4-16
EXPNO                 3
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB               1.00 Hz
GB       0
PC               1.40
```

Cyclic-Ile-Trp-Tyr (6):

6



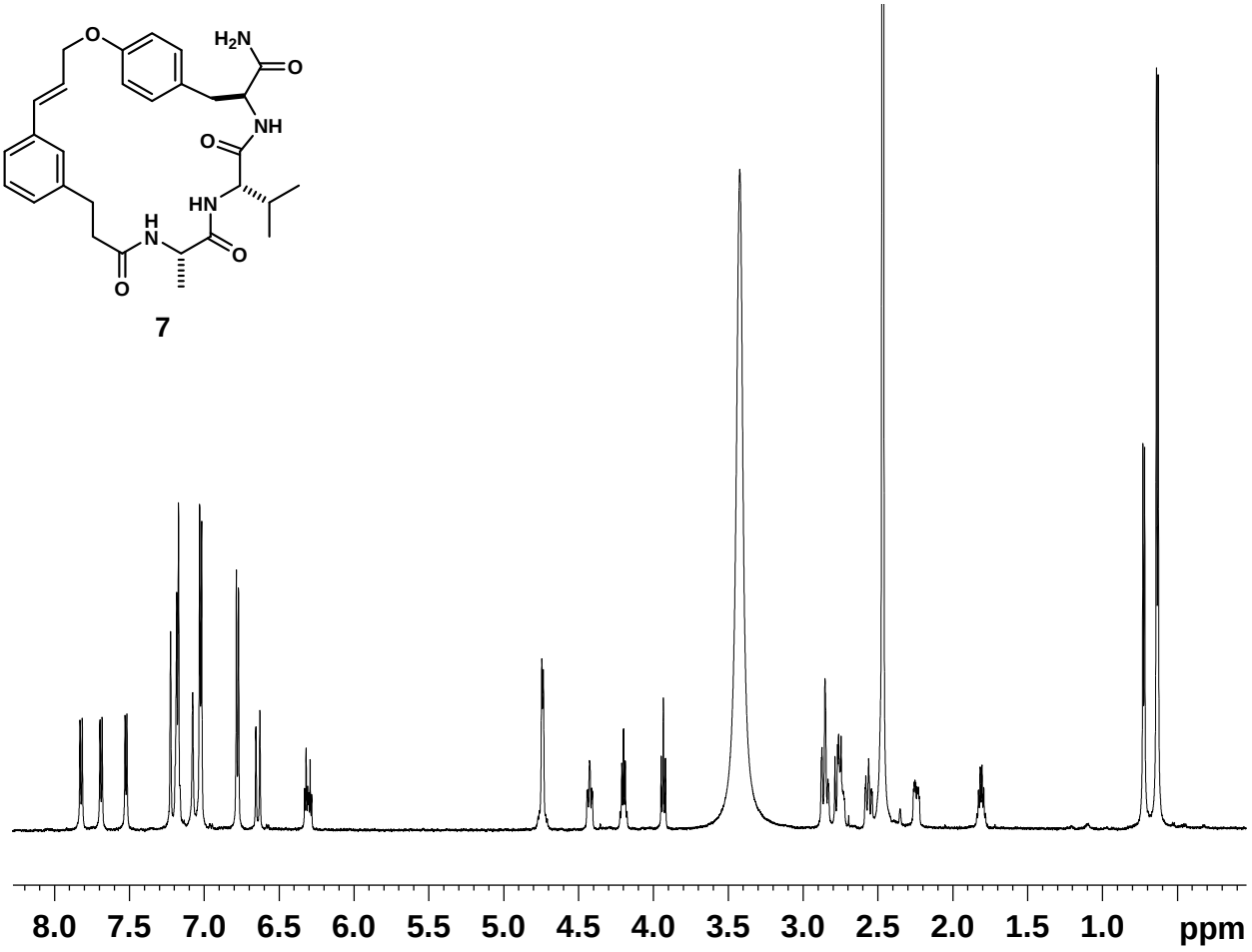

```
Current Data Parameters
NAME             IWY-Cy
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_           20130509
Time               11.10
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zgpr
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH            10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                    11
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1            2.00000000 sec
D12           0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         500.1317204 MHz
NUC1                   1H
P1                  10.00 usec
PLW1         13.50000000 W
PLW9          0.00005400 W

F2 - Processing parameters
SI                 65536
SF           500.1300146 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```



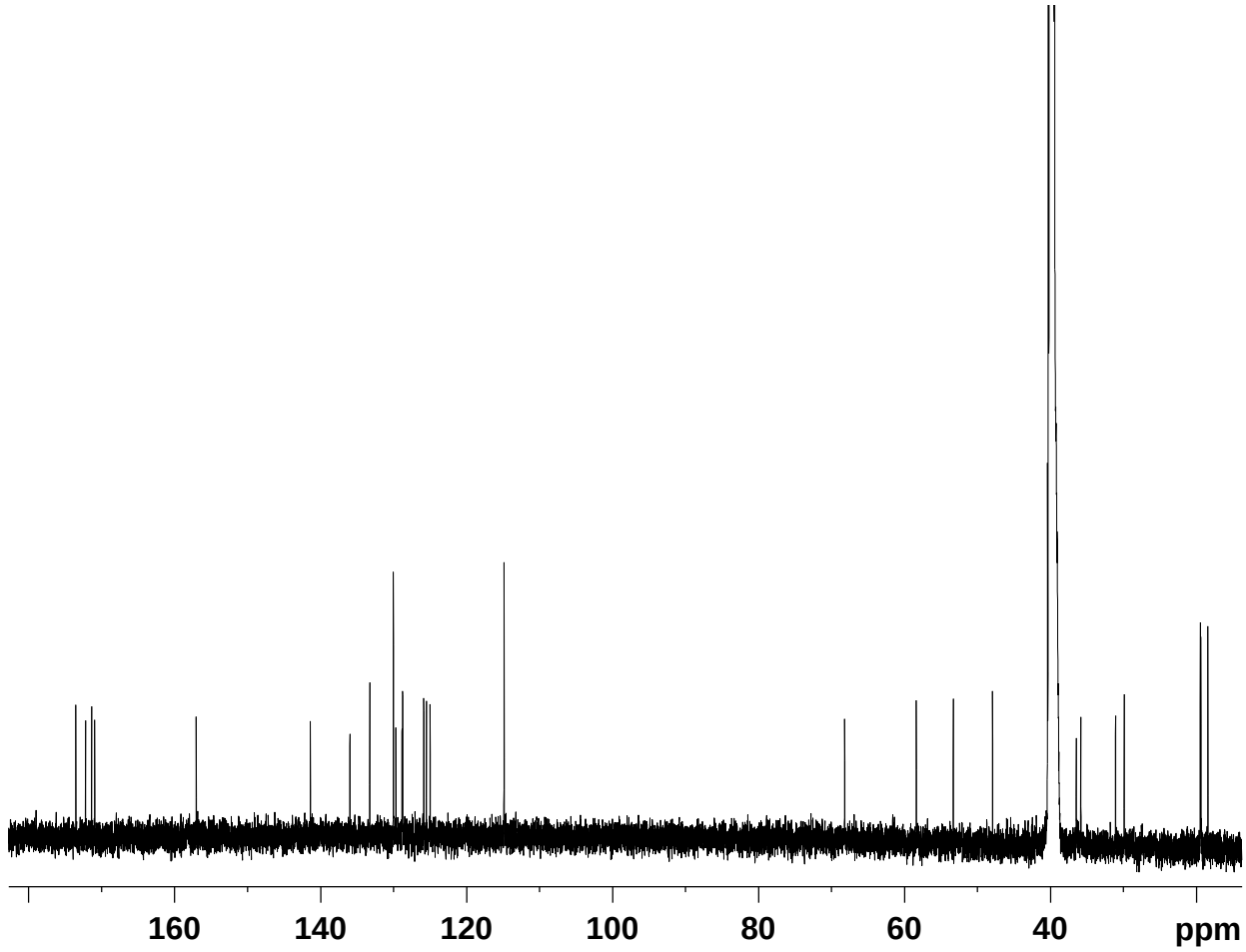

```
Current Data Parameters
NAME             IWY-Cy
EXPNO                 6
PROCNO                1

F2 - Acquisition Parameters
Date_           20130518
Time               3.28
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                 65536
SOLVENT             DMSO
NS                  8192
DS                     2
SWH            31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW                16.000 usec
DE                18.00 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         125.7722511 MHz
NUC1                  13C
P1                 9.63 usec
PLW1         23.00000000 W

======== CHANNEL f2 ========
SFO2         500.1330008 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2         13.50000000 W
PLW12         0.21094000 W
PLW13         0.13500001 W

F2 - Processing parameters
SI                131072
SF           125.7577892 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.00
```

Cyclic-Ala-Val-Tyr (7):

7



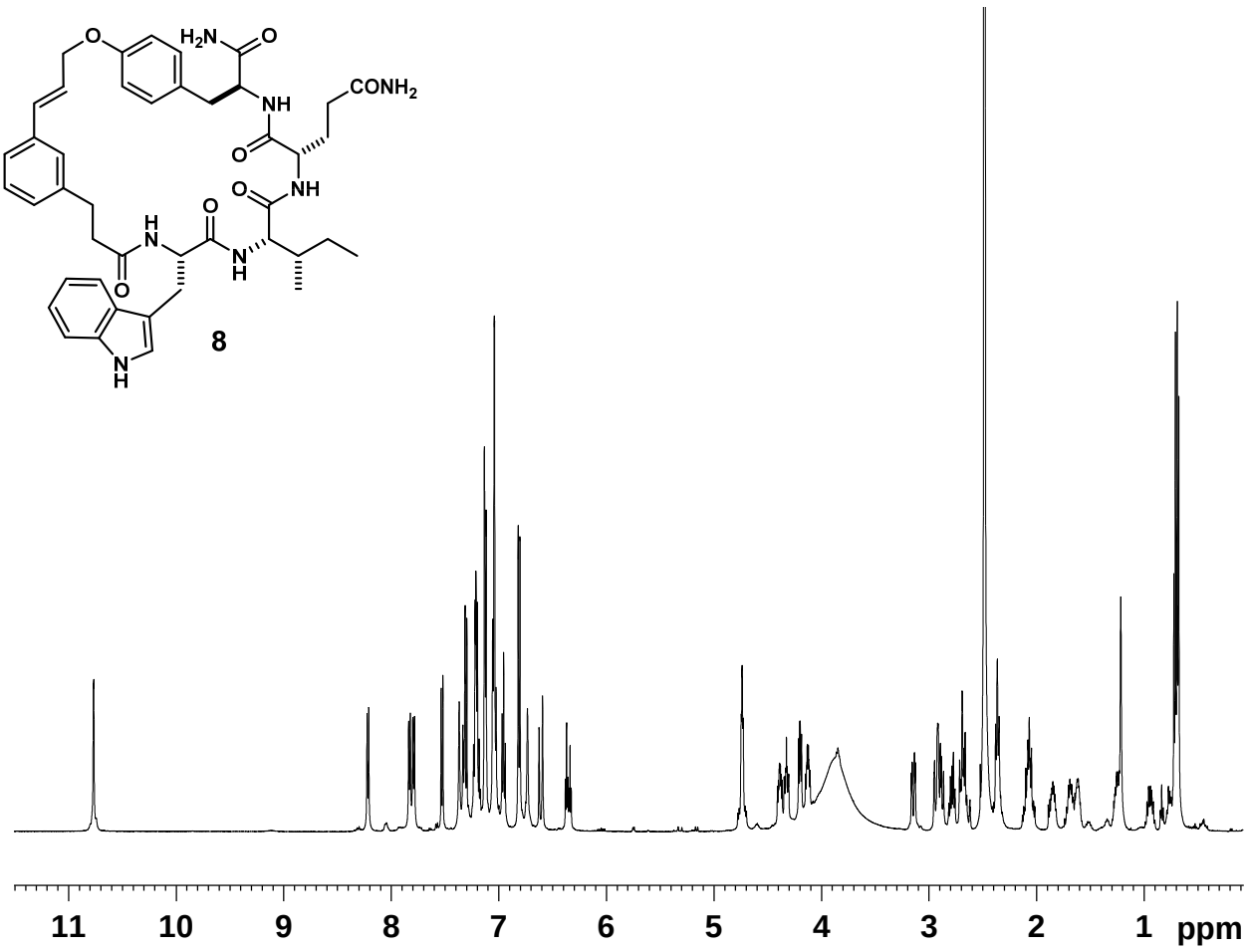

```
Current Data Parameters
NAME            KL-4-22
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20110926
Time              17.07
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                 181
DW               40.400 usec
DE                6.50 usec
TE               294.0 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1                9.10 usec
PL1              -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



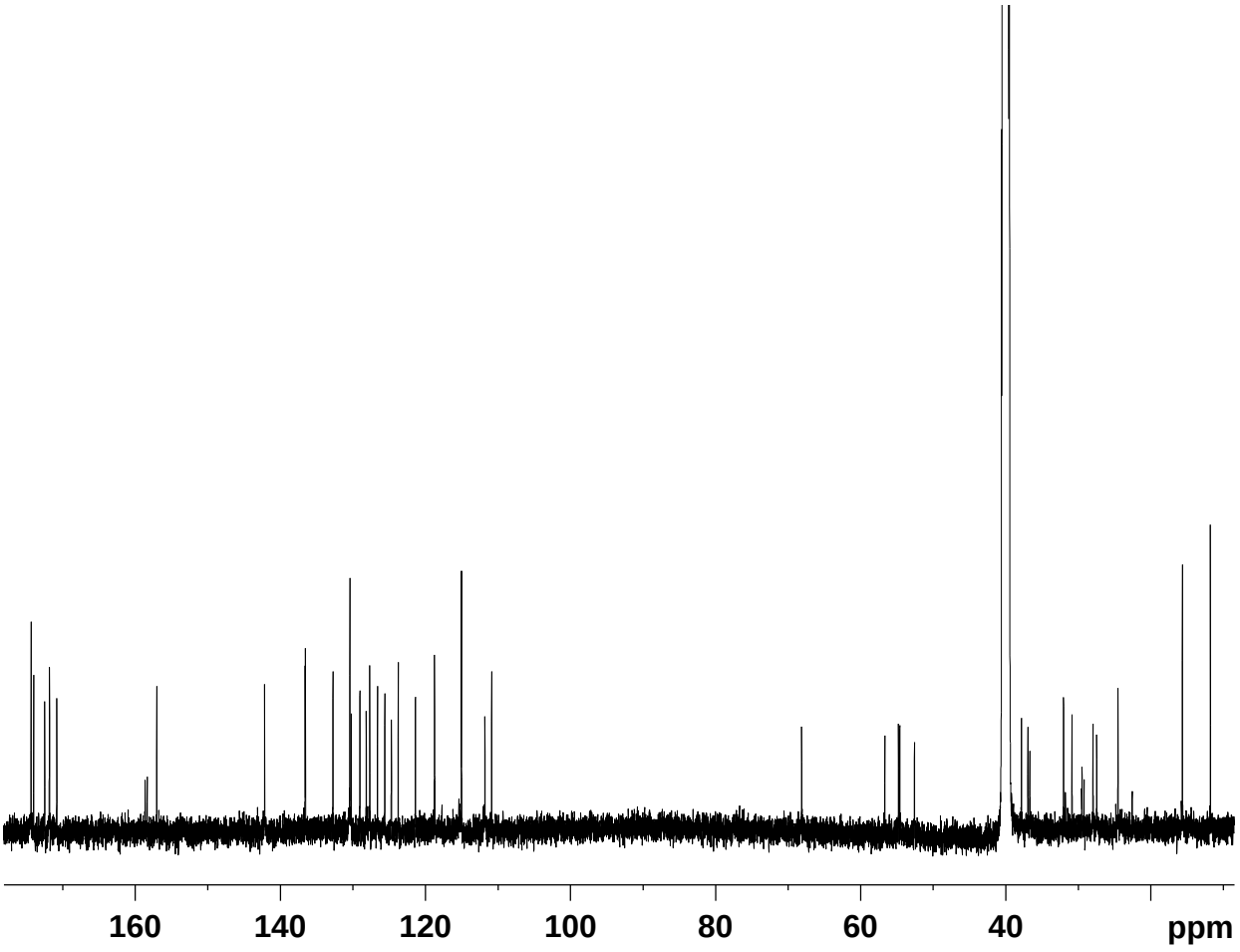

```
Current Data Parameters
NAME            KL-4-22
EXPNO                 3
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Cyclic-Trp-Ile-Gln-Tyr (8):

8



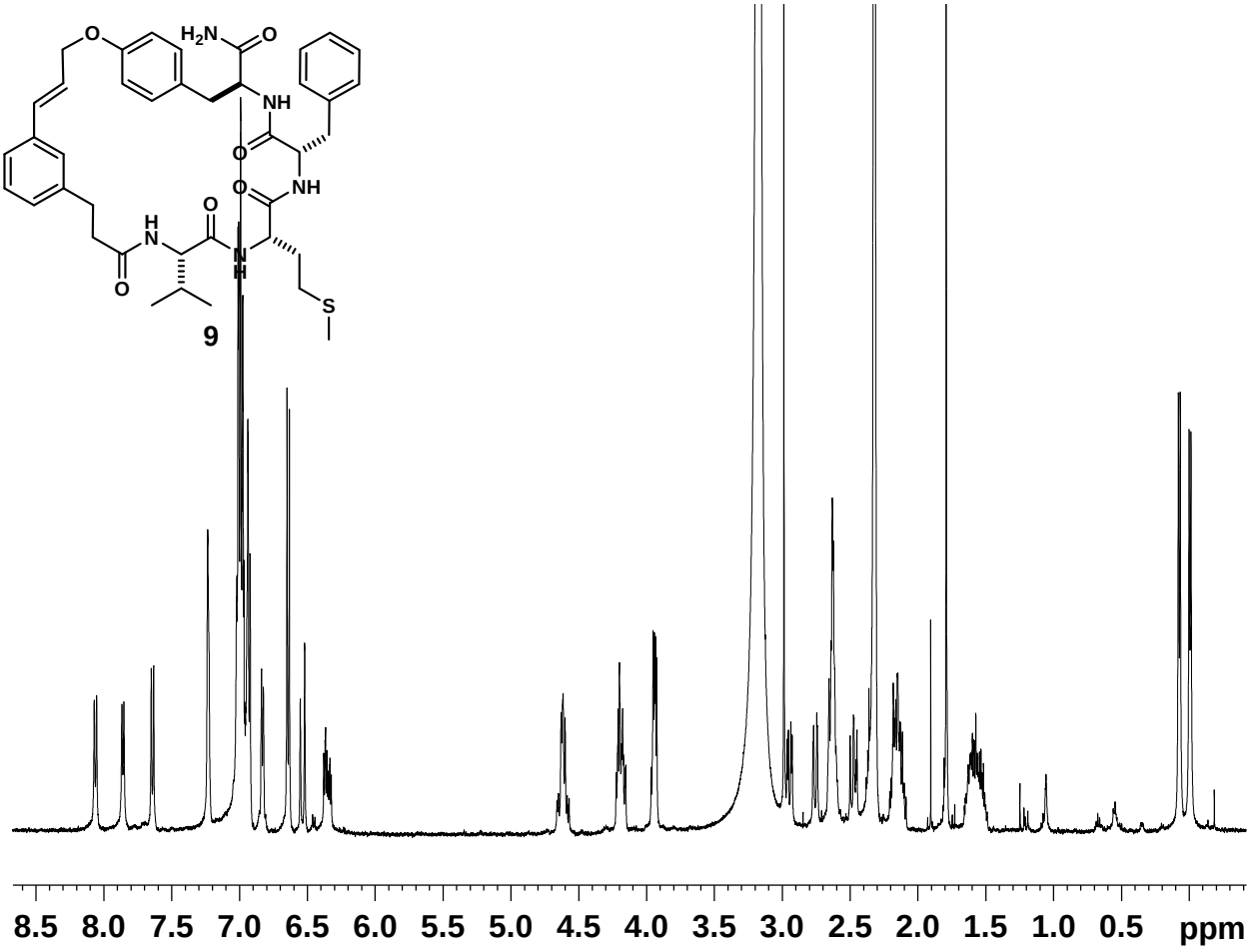

```
Current Data Parameters
NAME          KL-5-117b
EXPNO                 3
PROCNO                1

F2 - Acquisition Parameters
Date_          20130204
Time              18.16
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                   64
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                   11
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1         500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1         13.50000000 W

F2 - Processing parameters
SI                65536
SF           500.1300146 MHz
WDW                  EM
SSB       0
LB                0.30 Hz
GB        0
PC                1.00
```



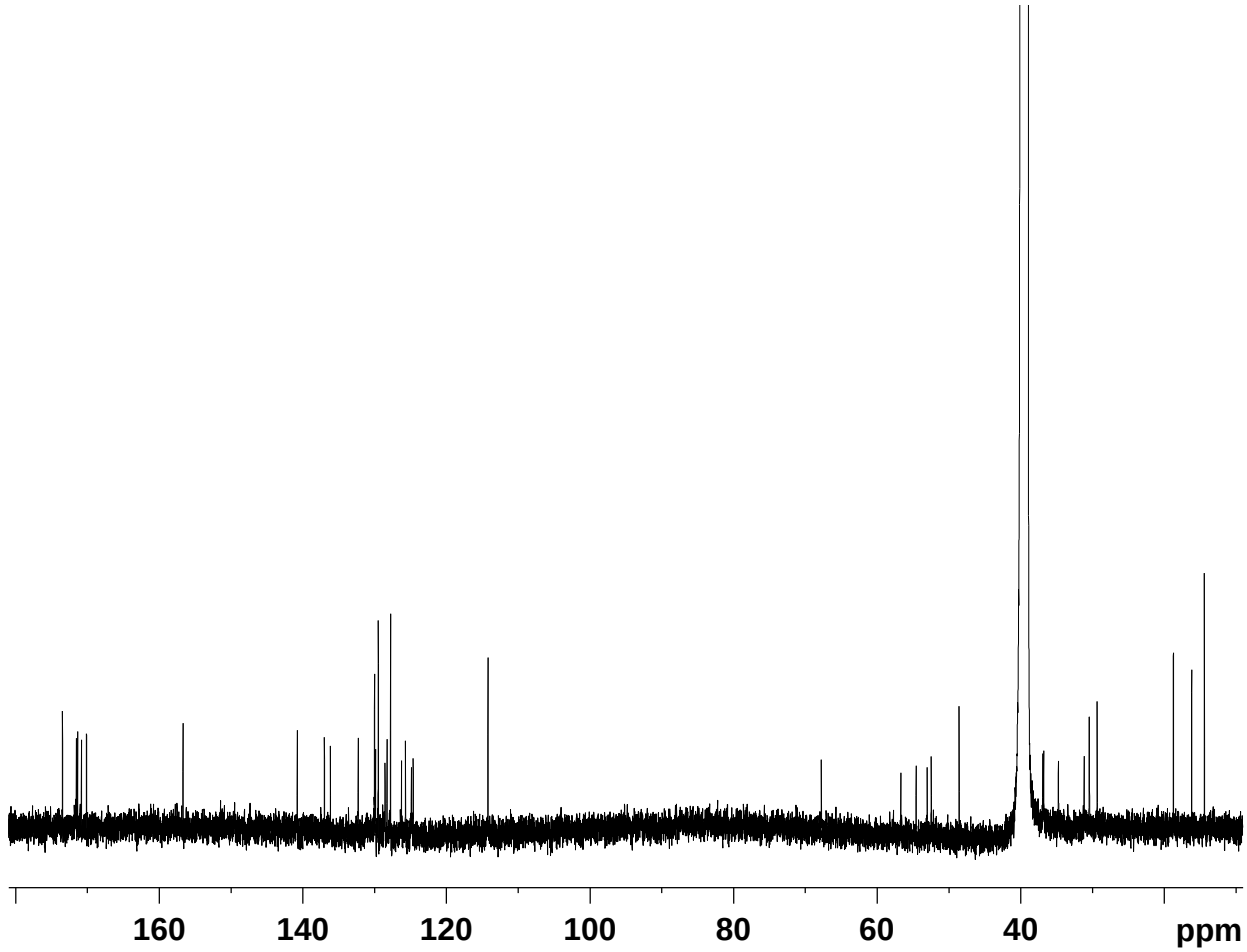

```
Current Data Parameters
NAME          KL-5-117b
EXPNO                 4
PROCNO                1

F2 - Acquisition Parameters
Date_          20130204
Time              19.00
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  861
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW               16.000 usec
DE               18.00 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1         125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1         23.00000000 W

======== CHANNEL f2 ========
SFO2         500.1330008 MHz
NUC2                1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2         13.50000000 W
PLW12         0.21094000 W
PLW13         0.13500001 W

F2 - Processing parameters
SI               131072
SF           125.7577892 MHz
WDW                  EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40
```

Cyclic-Val-Met-Phe-Tyr (9):

9



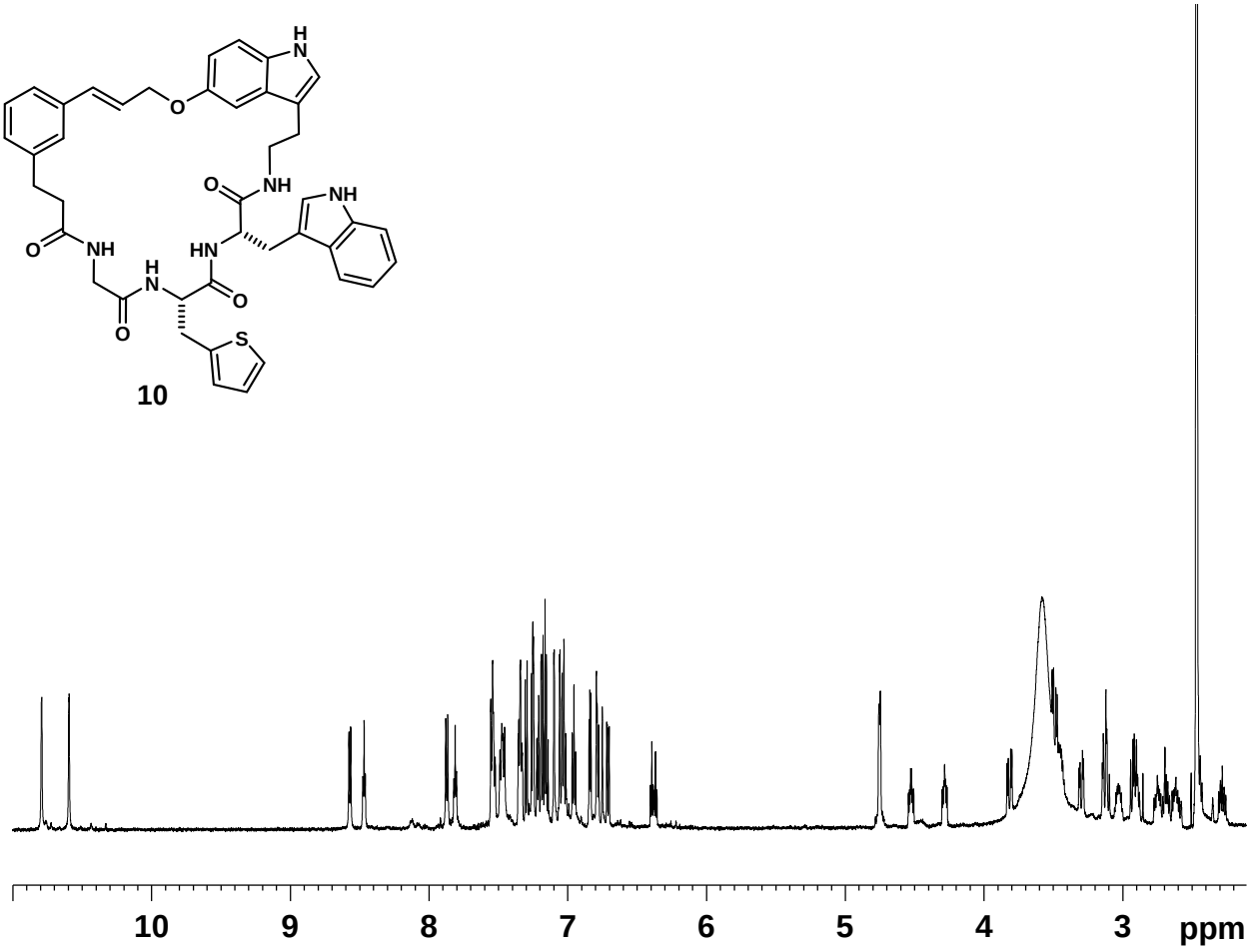
```
Current Data Parameters
NAME       KL-4-56_ICON
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20120827
Time               22.07
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                  28.6
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300950 MHz
WDW                   EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

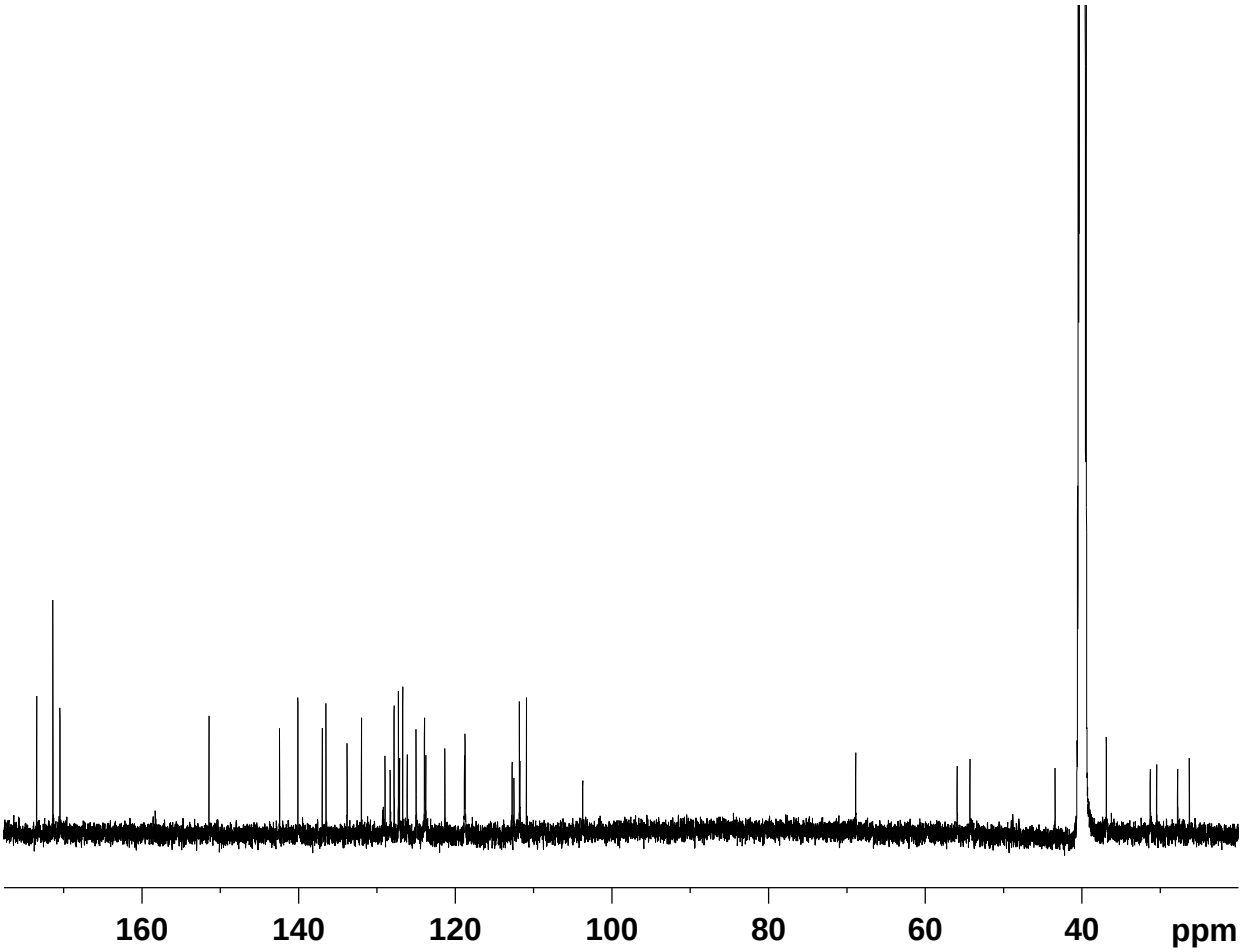
```
Current Data Parameters
NAME       KL-4-56_ICON
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI                131072
SF          125.7578519 MHz
WDW                   EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Cyclic-Gly-Thi-Trp-5HT (10):

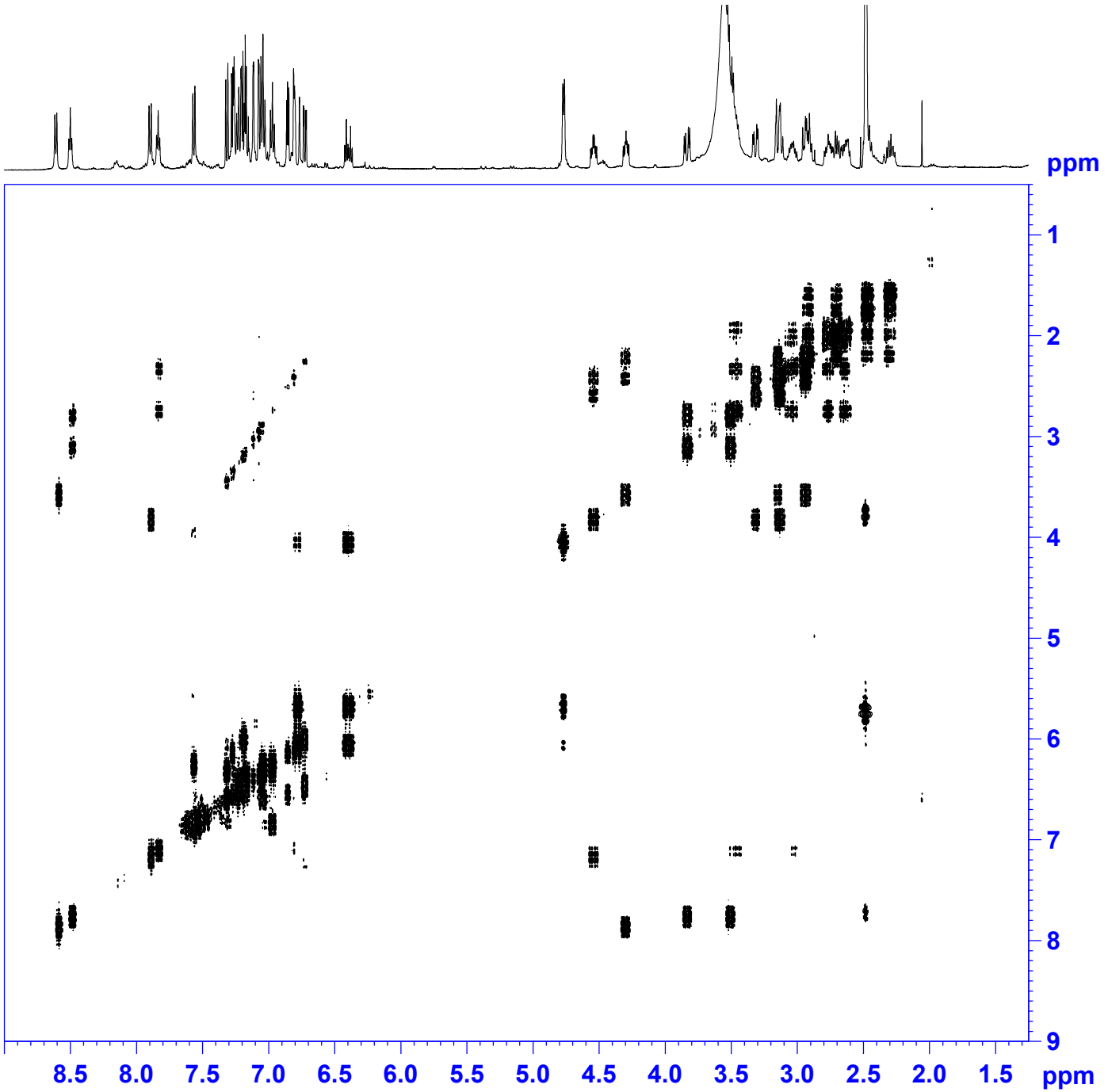
10

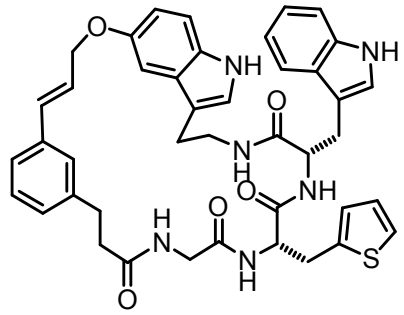



```
Current Data Parameters
NAME          KL-4-171B
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20120409
Time              19.19
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                 181
DW               40.400 usec
DE                6.50 usec
TE               294.6 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                 1H
P1                9.10 usec
PL1              -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

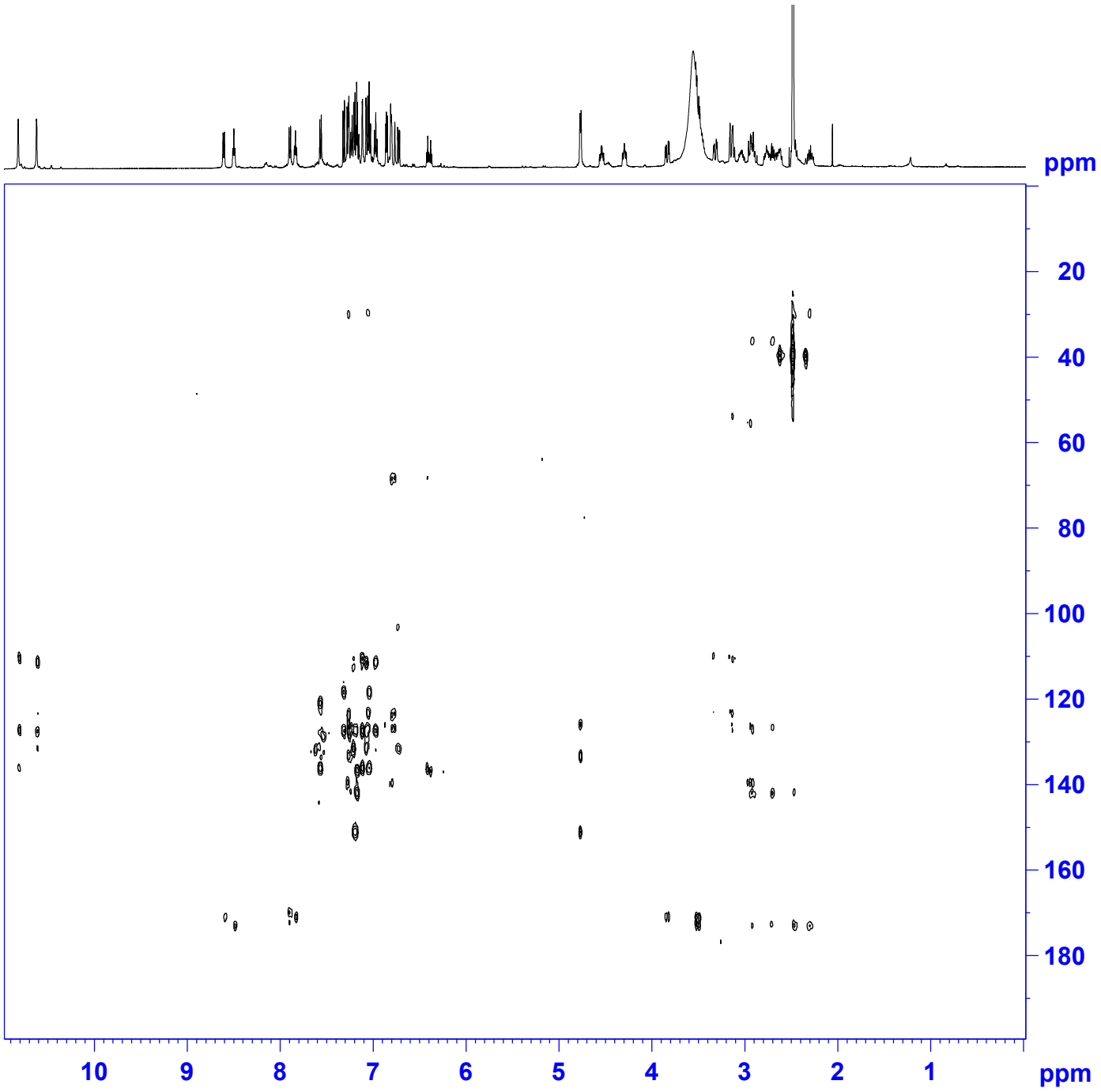


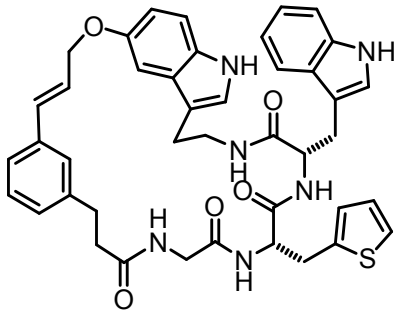

```
Current Data Parameters
NAME     KL-4-171A_500A
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20120411
Time              18.26
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT           DMSO
NS                  600
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE                18.00 usec
TE                296.0 K
D1           2.00000000 sec
d11          0.03000000 sec
DELTA        1.89999998 sec
TD0                   1
SFO1        125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1        23.00000000 W
SFO2        500.1330008 MHz
NUC2                 1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```





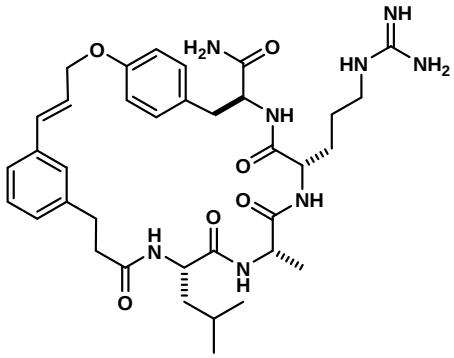

```
Current Data Parameters
NAME      KL-4-171A_500A
EXPNO                  5
PROCNO                 1

F1 - Acquisition parameters
TD                   256
SFO1          500.1328 MHz
FIDRES       19.536423 Hz
SW             10.000 ppm
FnMODE      States-TPPI

F2 - Processing parameters
SI                  2048
SF          500.1300135 MHz
WDW                 SINE
SSB                    1
LB        0 Hz
GB        0
PC                  1.00

F1 - Processing parameters
SI                  2048
MC2         States-TPPI
SF          500.1303720 MHz
WDW               QSINE
SSB                    1
LB        0 Hz
GB        0
```





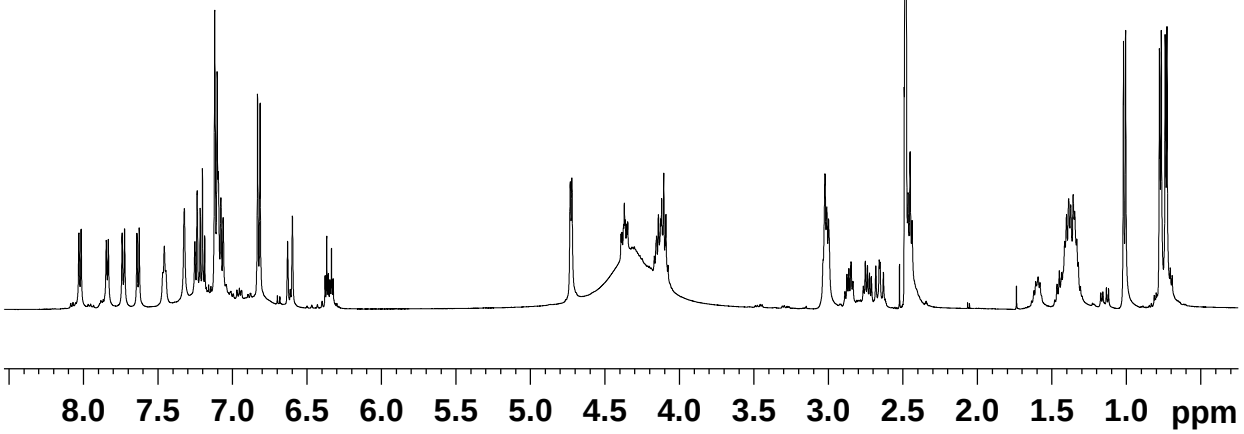

```
Current Data Parameters
NAME      KL-4-171A_500A
EXPNO                  6
PROCNO                 1

F1 - Acquisition parameters
TD                   162
SFO1          125.7704 MHz
FIDRES       155.271286 Hz
SW              199.999 ppm
FnMODE                QF

F2 - Processing parameters
SI                  2048
SF          500.1300135 MHz
WDW                QSINE
SSB                    2
LB        0 Hz
GB        0
PC                  1.00

F1 - Processing parameters
SI                  2048
MC2                   QF
SF          125.7578472 MHz
WDW
SSB                    2
LB        0 Hz
GB        0
```

Cyclic- Leu-Ala-Arg-Tyr (11):

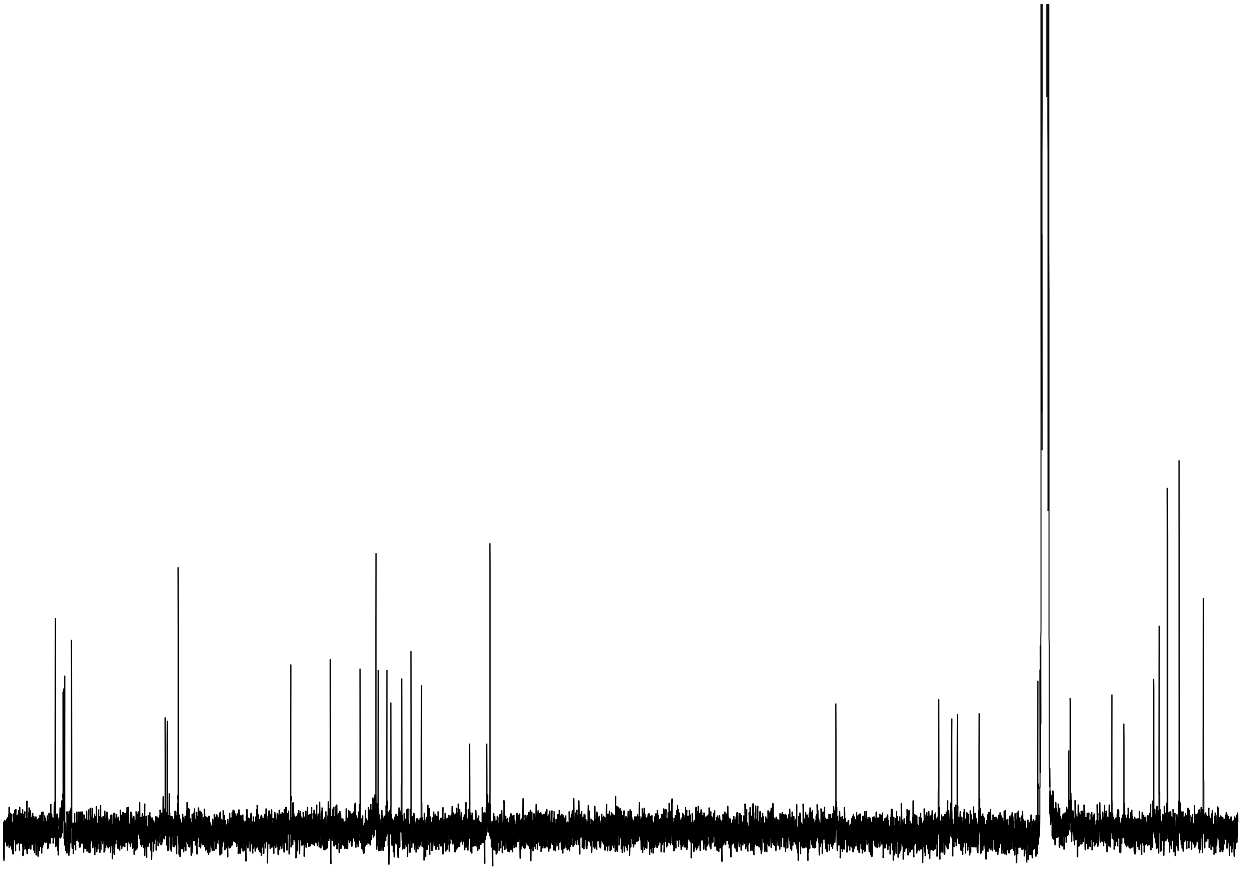


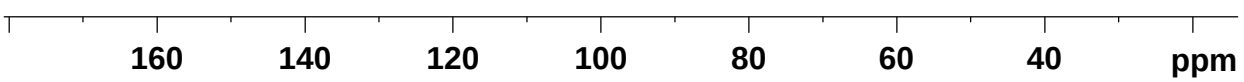
11

```
Current Data Parameters
NAME      KL-4-51_CHECK
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20111019
Time              19.37
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES            0.152588 Hz
AQ            3.2767999 sec
RG                22.82
DW               50.000 usec
DE               10.00 usec
TE                301.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

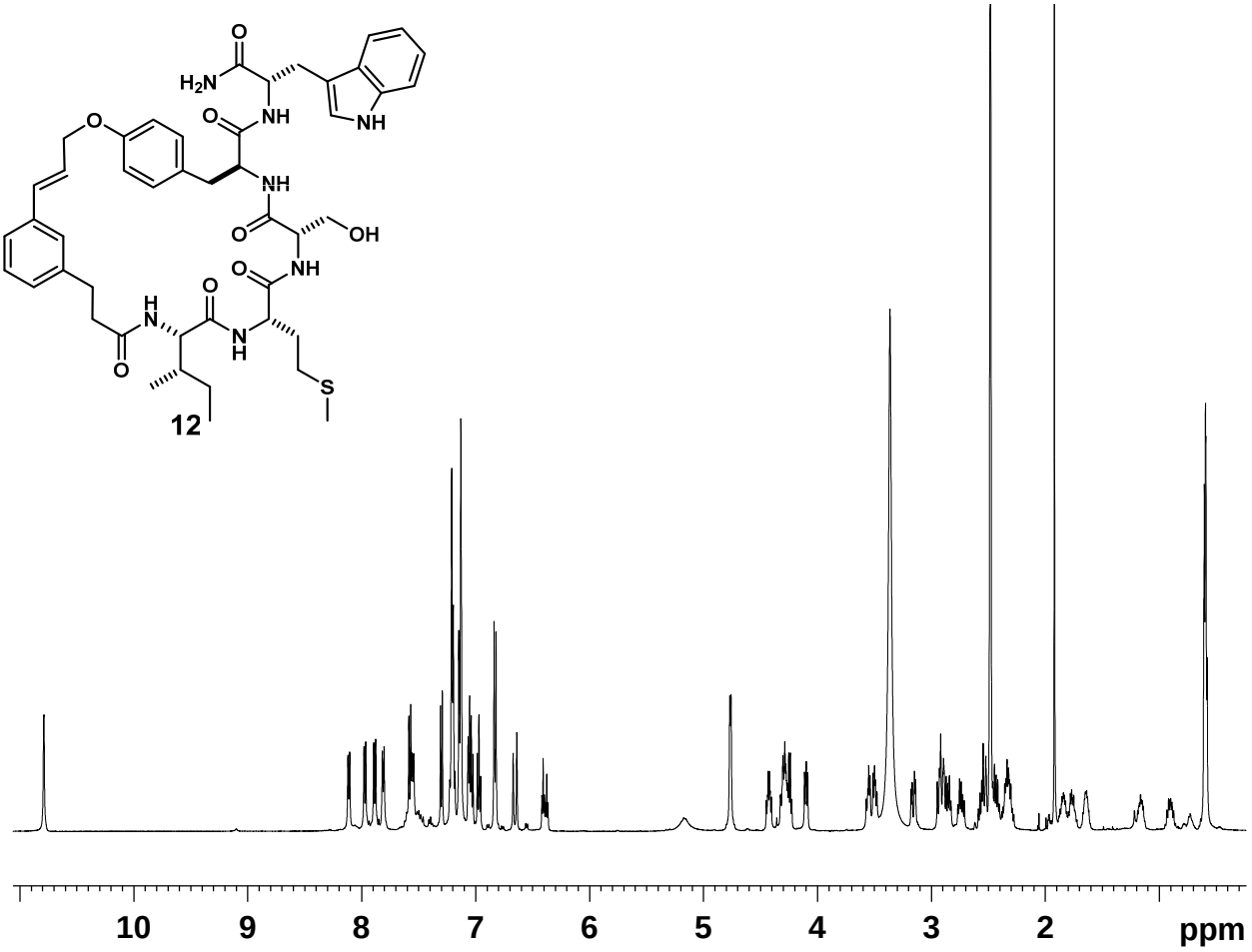



```
Current Data Parameters
NAME      KL-4-51_CHECK
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.00
```

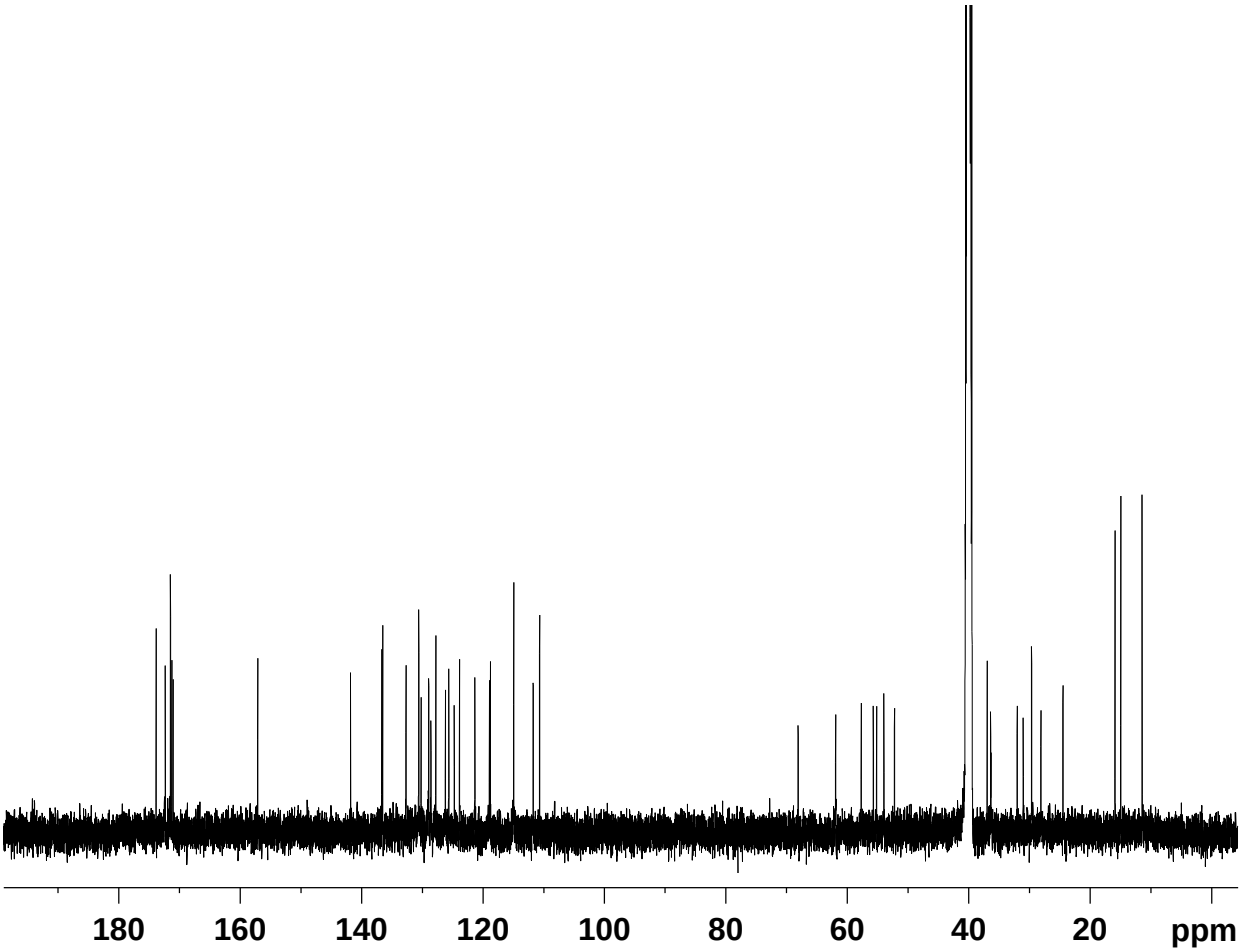




Cyclic-Ile-Met-Ser-Tyr-Trp (12):



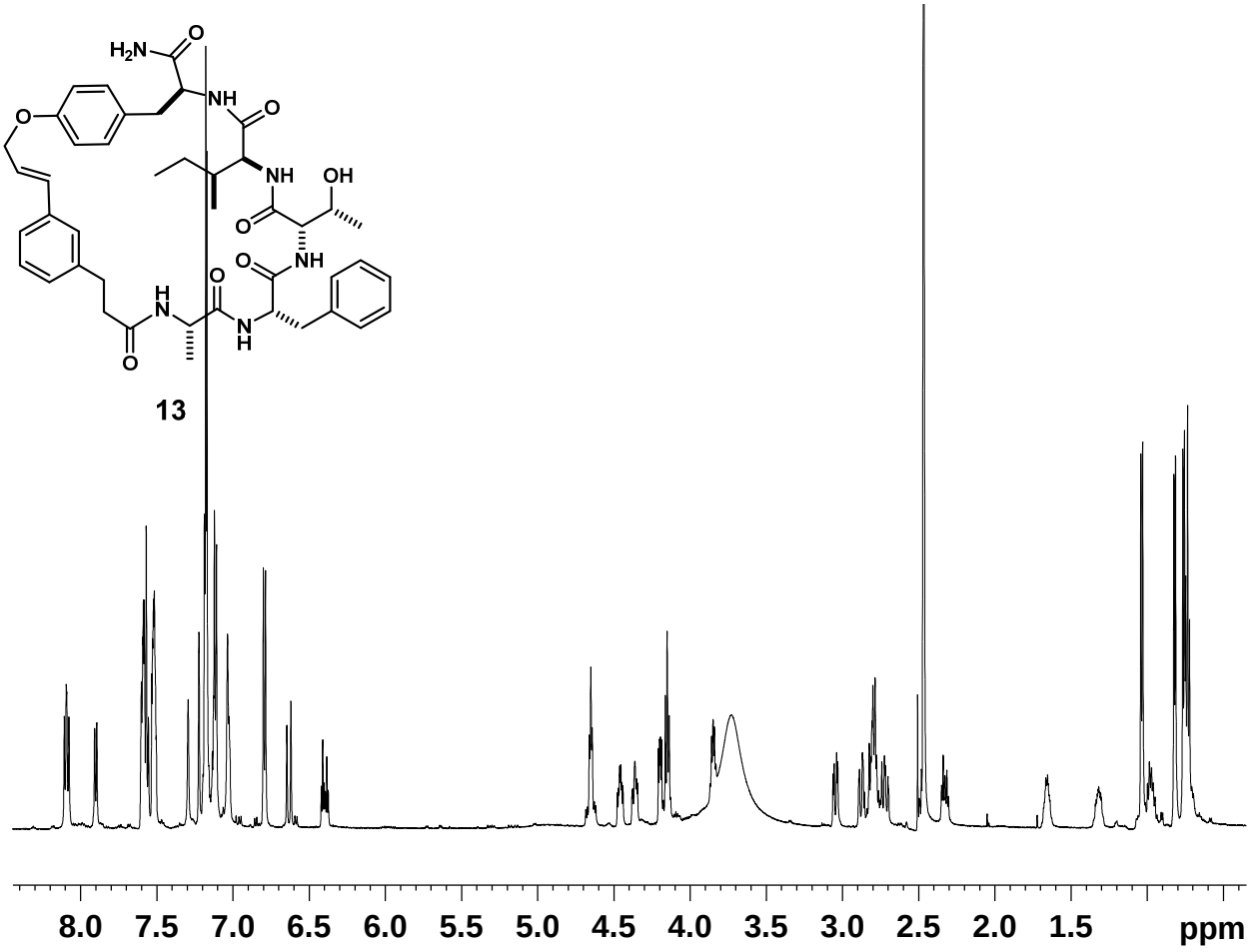

```
Current Data Parameters
NAME            KL-4-57
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20111019
Time              19.25
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                20.17
DW               50.000 usec
DE               10.00 usec
TE                301.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



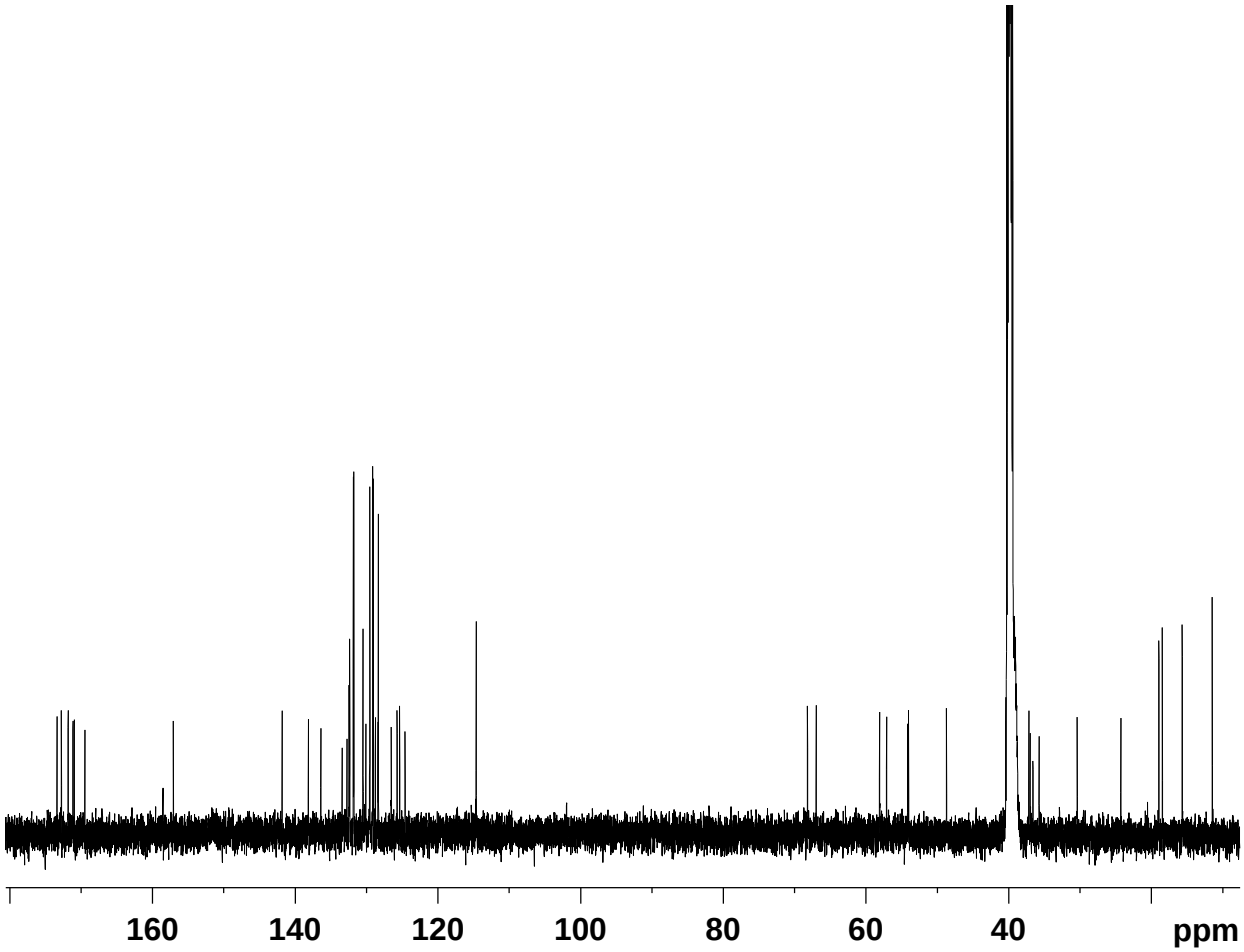

```
Current Data Parameters
NAME            KL-4-57
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Cyclic- Ala-Phe-Thr-Ile-Tyr (13):

13

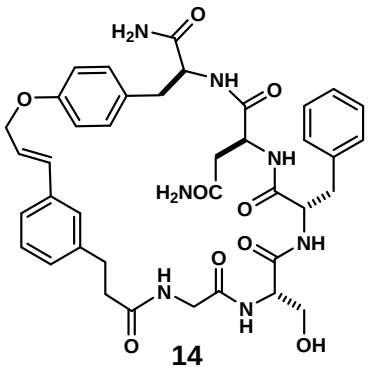



```
Current Data Parameters
NAME            KL-4-48
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20111007
Time              10.20
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                 181
DW               40.400 usec
DE                6.50 usec
TE               295.8 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                 1H
P1                9.10 usec
PL1              -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB               0.30 Hz
GB       0
PC               1.00
```



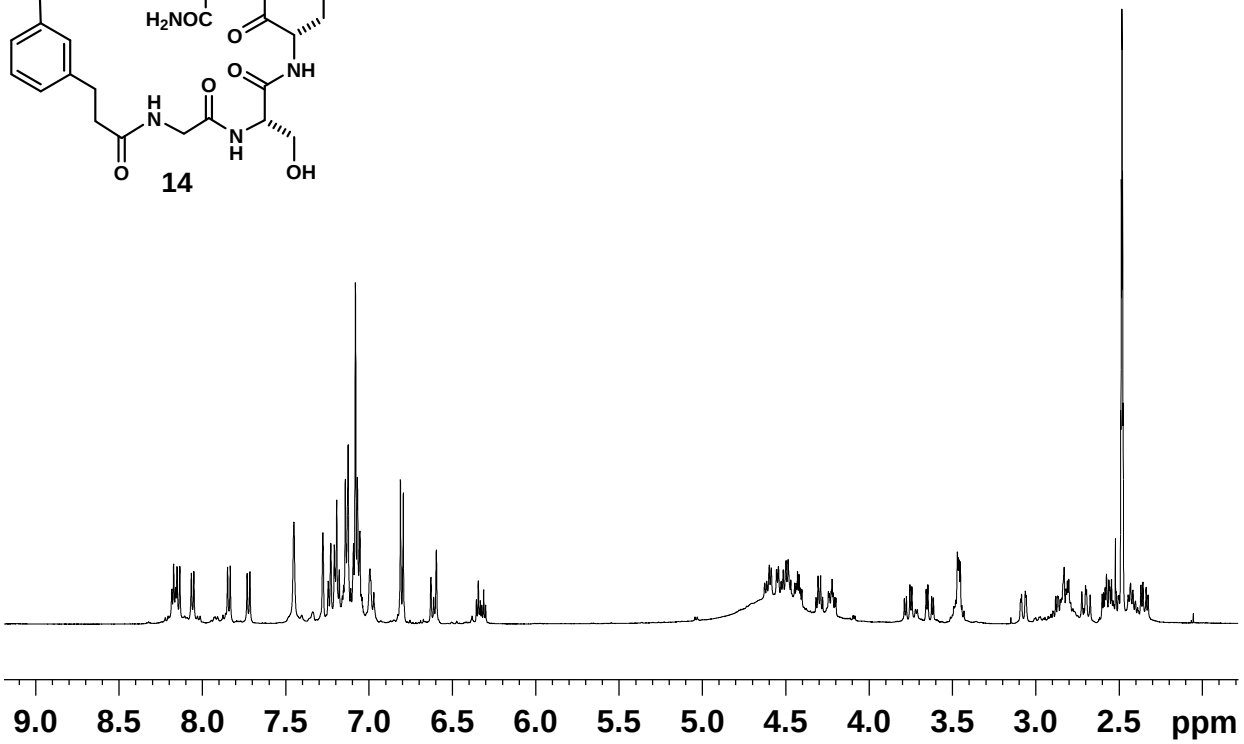

```
Current Data Parameters
NAME            KL-4-48
EXPNO                 3
PROCNO                1

F2 - Processing parameters
SI                65536
SF          150.9028319 MHz
WDW                  EM
SSB      0
LB               1.00 Hz
GB       0
PC               1.40
```

Cyclic-Gly-Ser-Phe-Asn-Tyr (14):

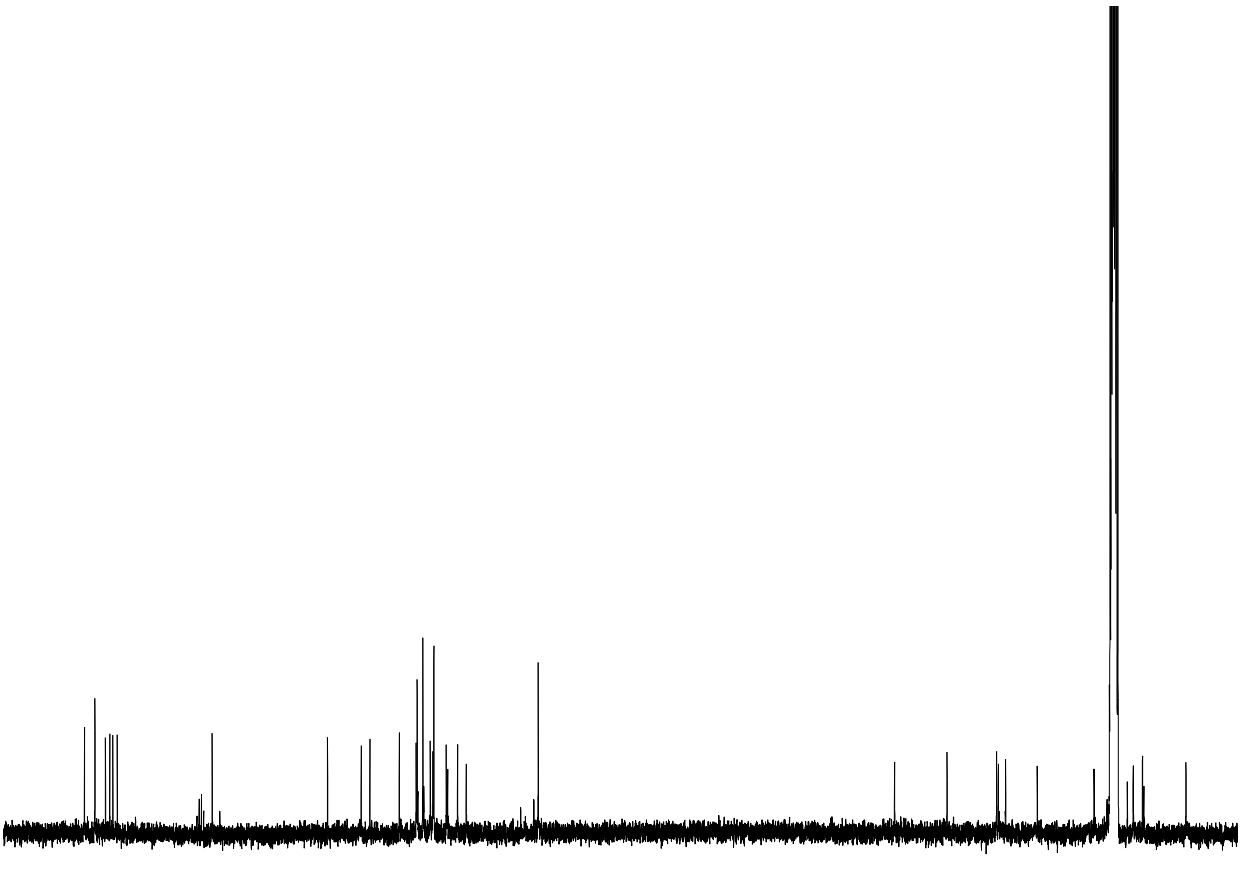


14

```
Current Data Parameters
NAME            KL-4-58
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20111019
Time              19.11
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    4
DS                    0
SWH           10000.000 Hz
FIDRES        0.152588 Hz
AQ            3.2767999 sec
RG                60.32
DW               50.000 usec
DE               10.00 usec
TE               301.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

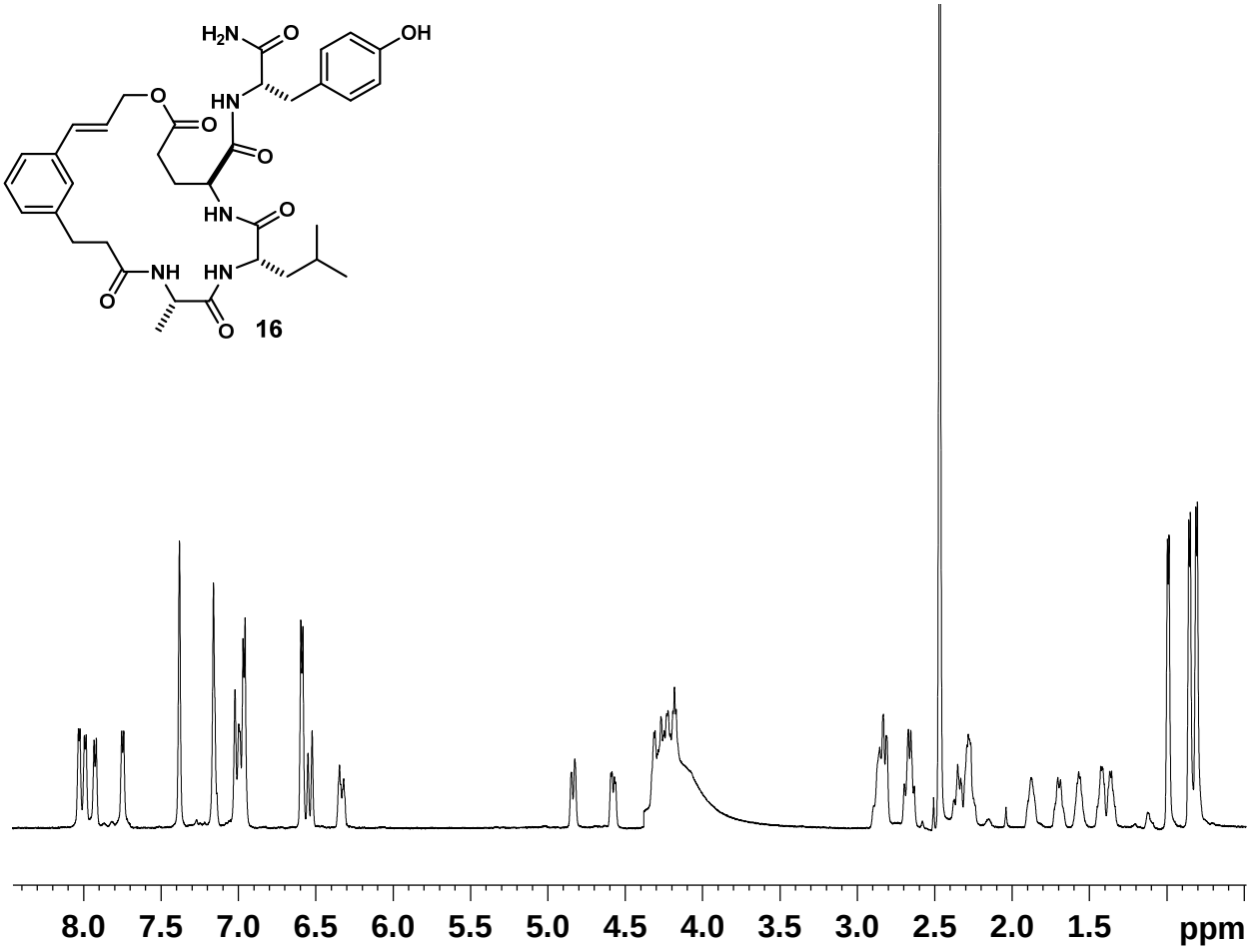



```
Current Data Parameters
NAME            KL-4-58
EXPNO                 2
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

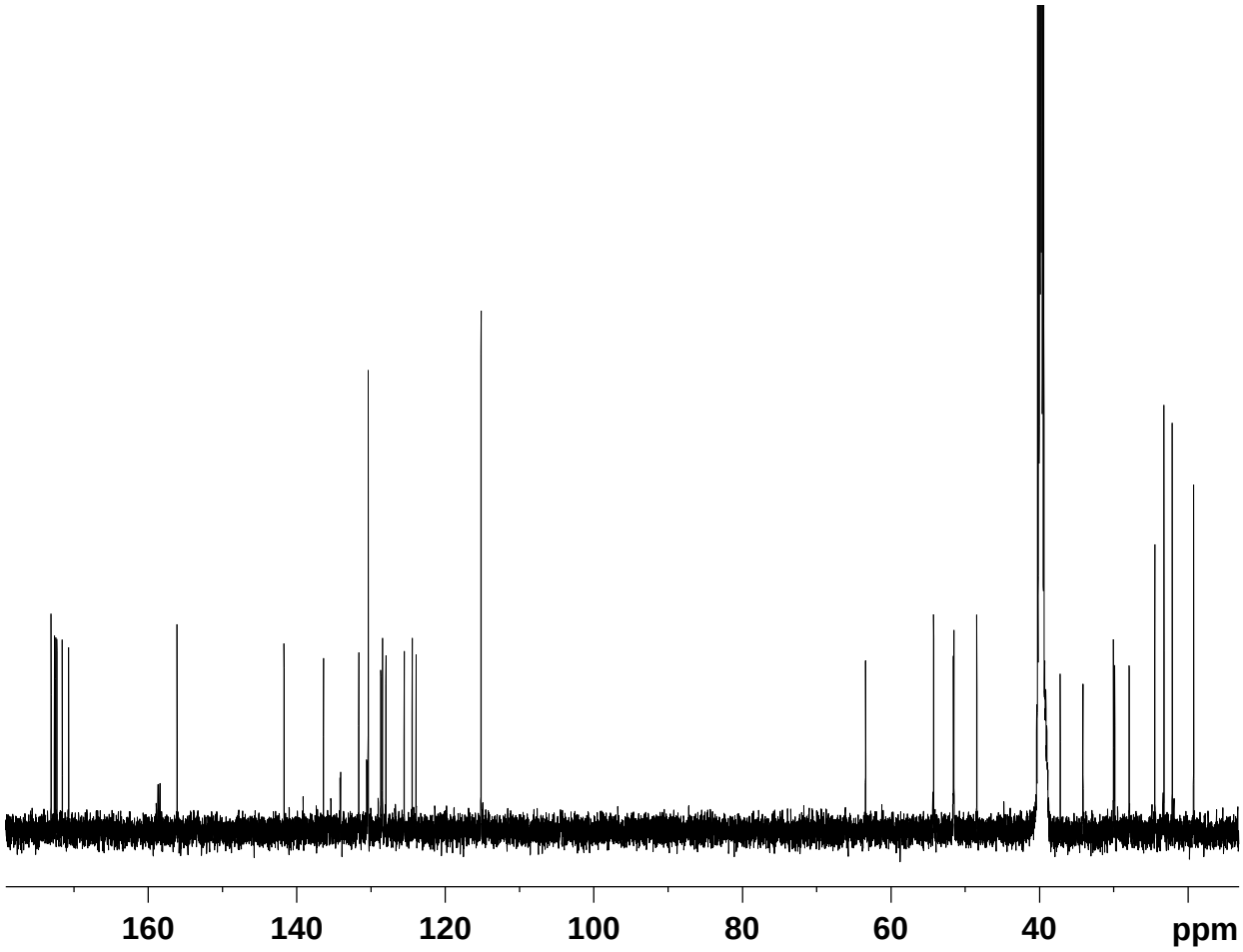


Cyclic-Ala-Leu-Glu-Tyr (16):

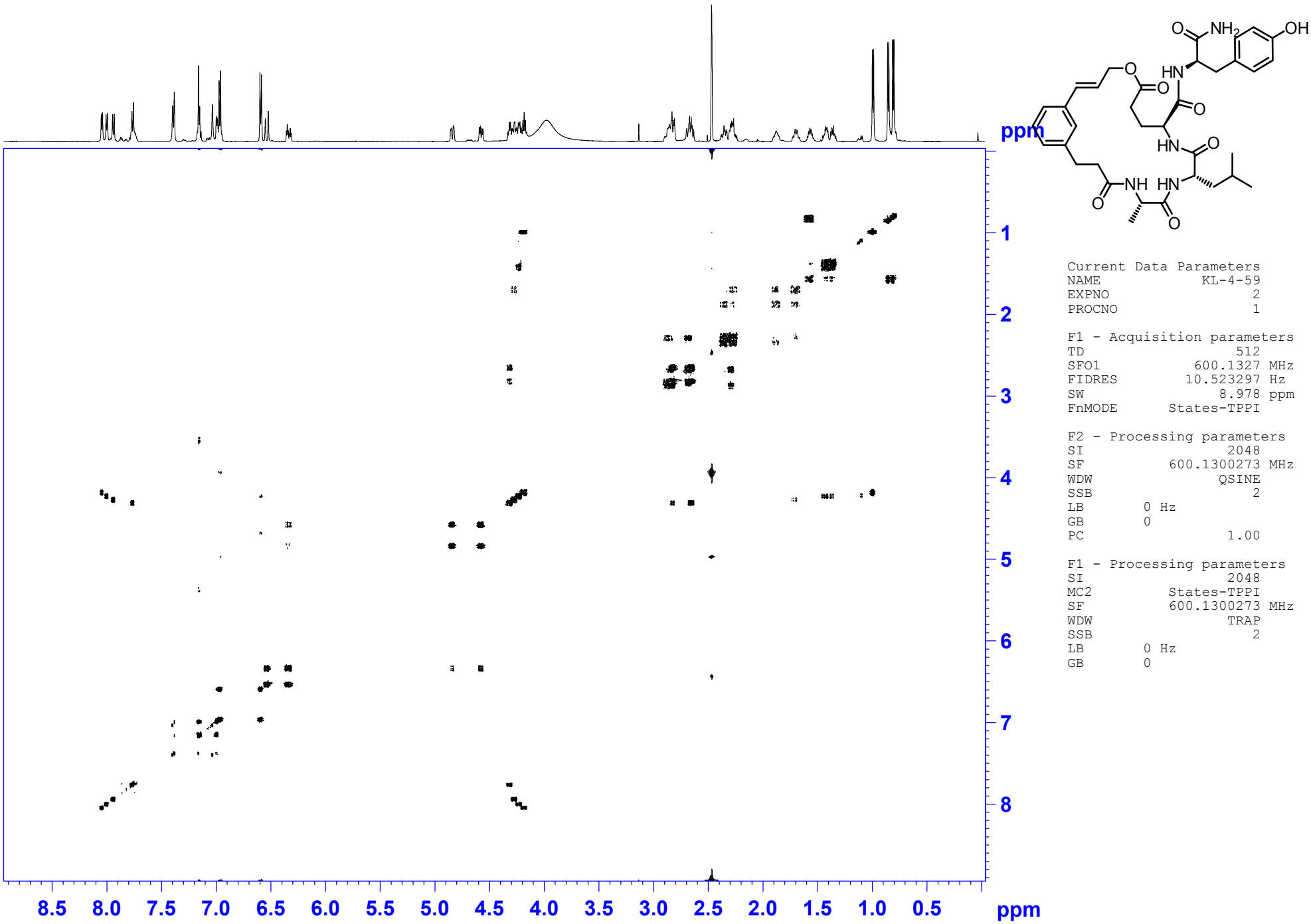
16



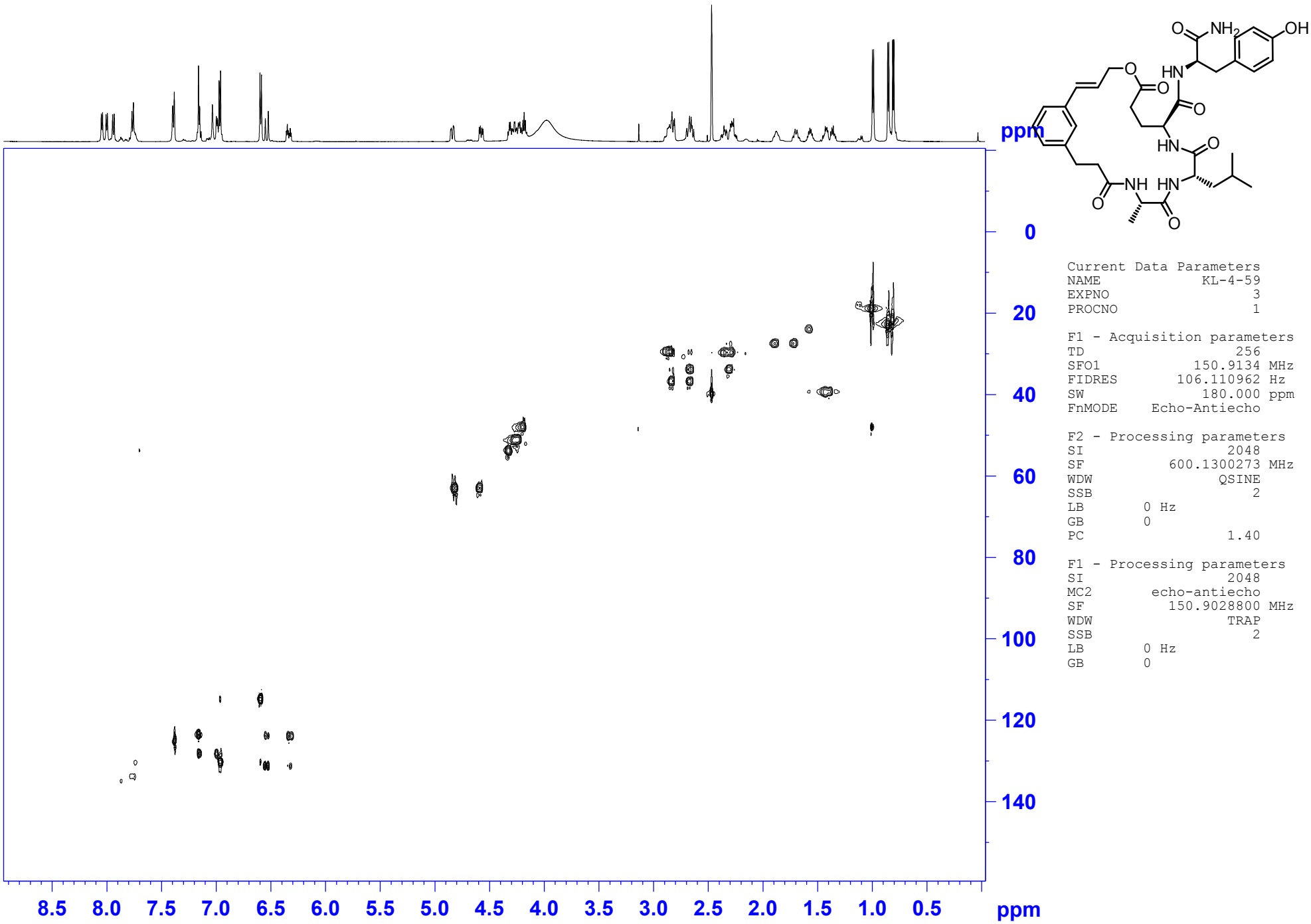

```
Current Data Parameters
NAME         KL-4-50_f92
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20111008
Time               19.54
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                   181
DW               40.400 usec
DE                6.50 usec
TE               295.7 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 9.10 usec
PL1               -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                 65536
SF          600.1300273 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```



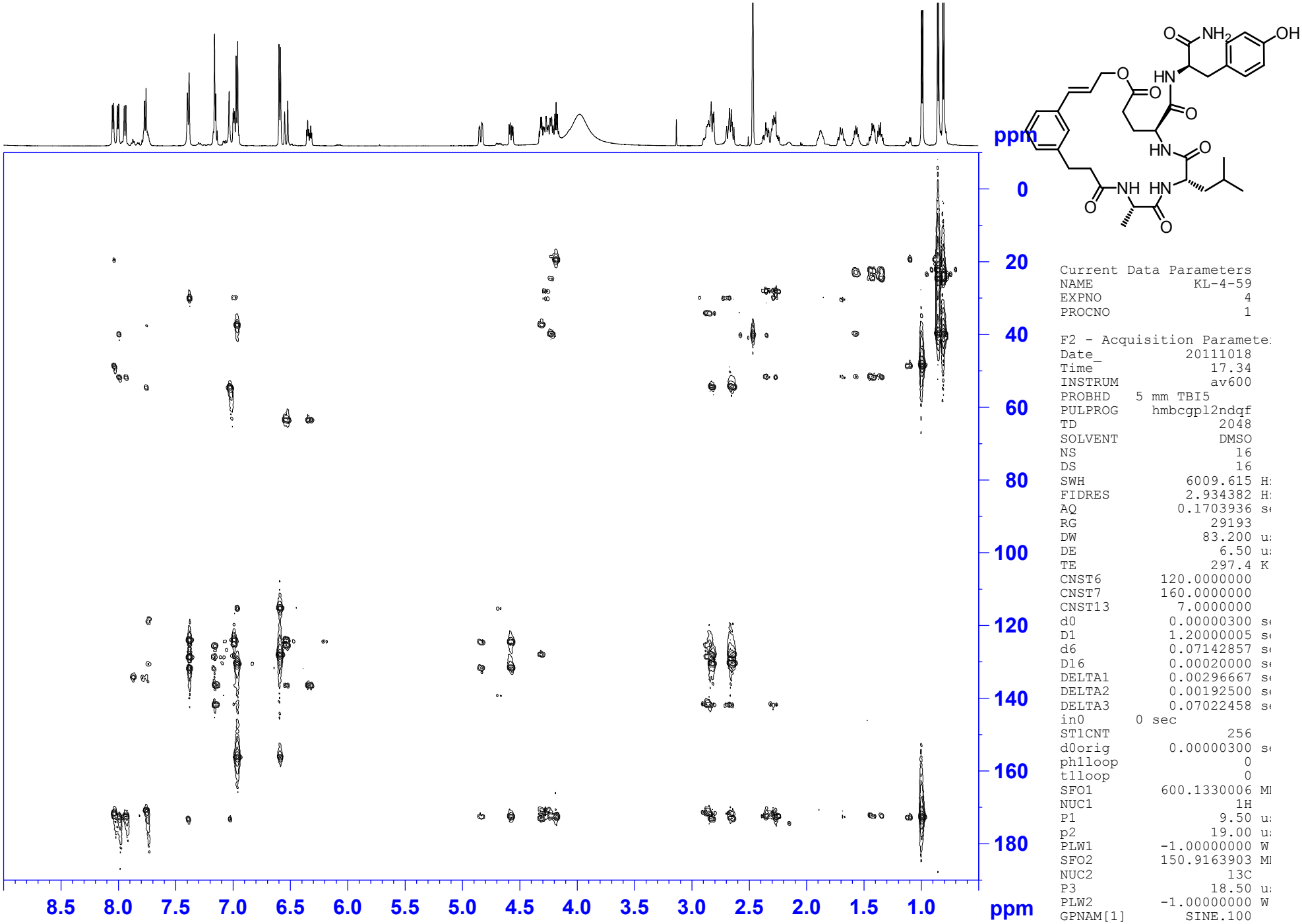

```
Current Data Parameters
NAME            KL-4-59
EXPNO                 7
PROCNO                1

F2 - Processing parameters
SI                 65536
SF          150.9028319 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```




```
Current Data Parameters
NAME                  KL-4-59
EXPNO                       2
PROCNO                      1

F1 - Acquisition parameters
TD                        512
SFO1                600.1327 MHz
FIDRES             10.523297 Hz
SW                     8.978 ppm
FnMODE           States-TPPI

F2 - Processing parameters
SI                       2048
SF                600.1300273 MHz
WDW                     QSINE
SSB                         2
LB             0 Hz
GB             0
PC                       1.00

F1 - Processing parameters
SI                       2048
MC2              States-TPPI
SF                600.1300273 MHz
WDW                      TRAP
SSB                         2
LB             0 Hz
GB             0
```



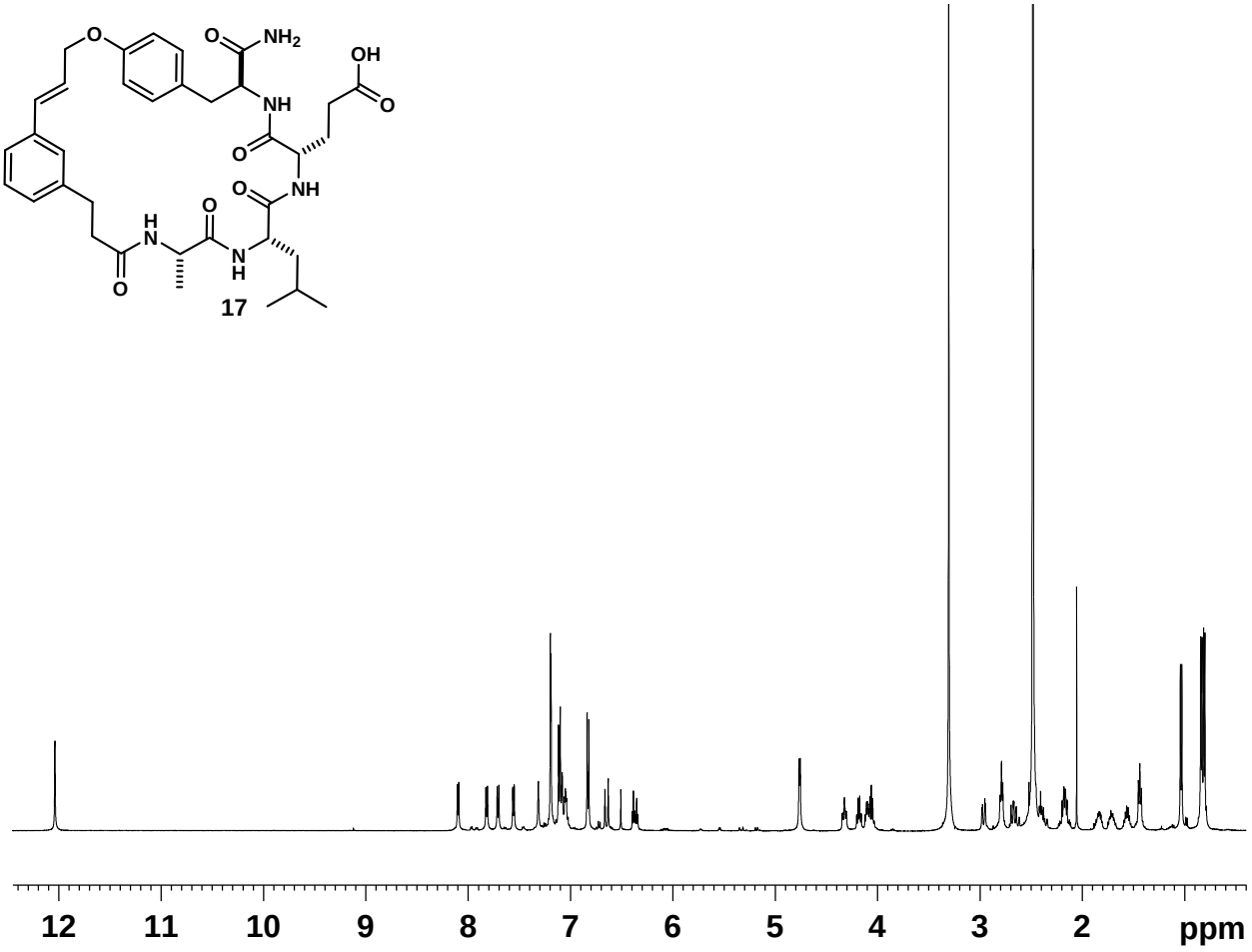

```
Current Data Parameters
NAME                  KL-4-59
EXPNO                       3
PROCNO                      1

F1 - Acquisition parameters
TD                        256
SFO1                150.9134 MHz
FIDRES             106.110962 Hz
SW                  180.000 ppm
FnMODE          Echo-Antiecho

F2 - Processing parameters
SI                       2048
SF                600.1300273 MHz
WDW                      QSINE
SSB                         2
LB                0 Hz
GB                0
PC                        1.40

F1 - Processing parameters
SI                       2048
MC2              echo-antiecho
SF                150.9028800 MHz
WDW                      TRAP
SSB                         2
LB                0 Hz
GB                0
```



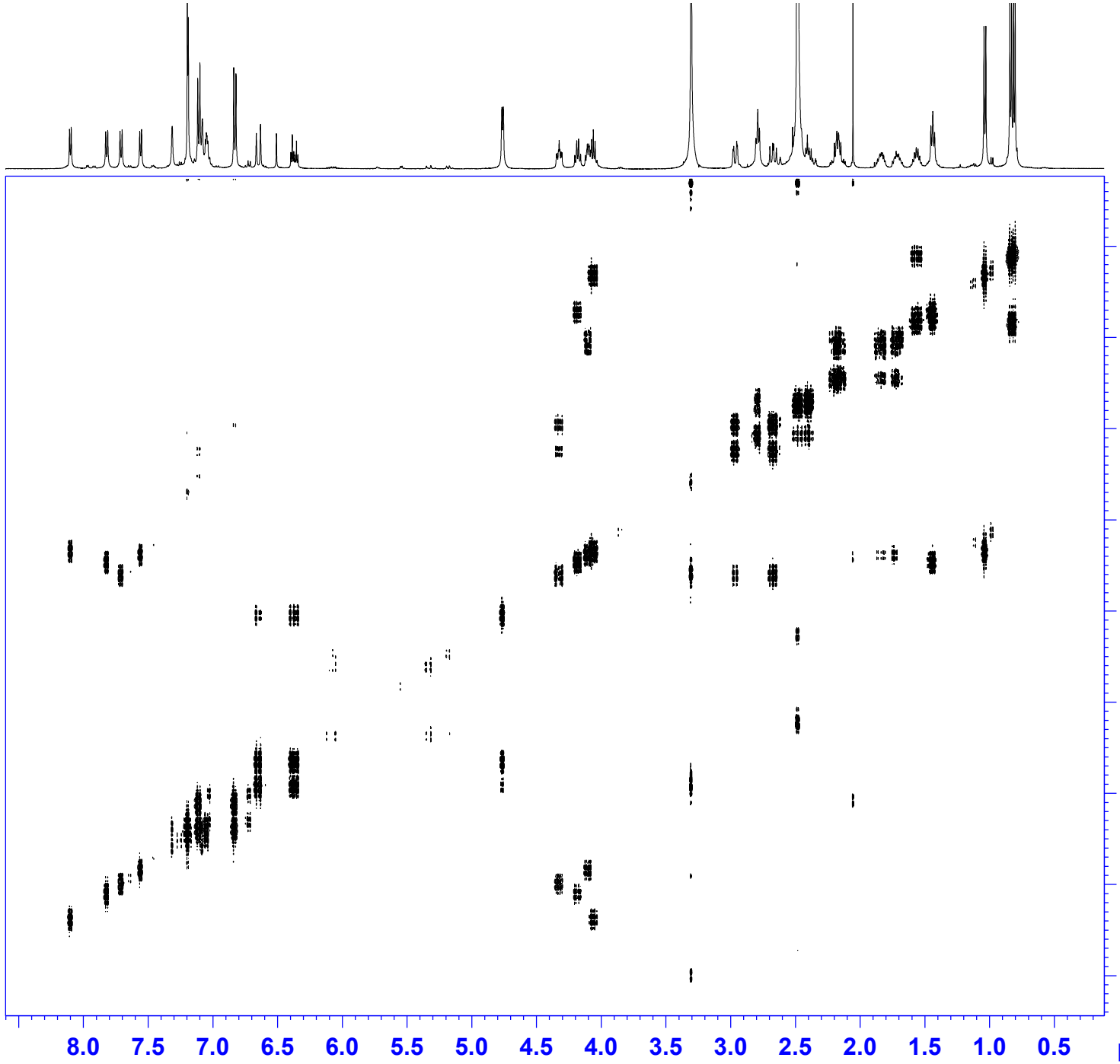

```
Current Data Parameters
NAME                  KL-4-59
EXPNO                       4
PROCNO                      1

F2 - Acquisition Parameter
Date_              20111018
Time                  17.34
INSTRUM               av600
PROBHD    5 mm TBI5
PULPROG     hmbcgpl2ndqf
TD                      2048
SOLVENT                 DMSO
NS                        16
DS                        16
SWH                 6009.615 H
FIDRES              2.934382 H
AQ                 0.1703936 s
RG                     29193
DW                    83.200 u
DE                     6.50 u
TE                    297.4 K
CNST6             120.0000000
CNST7             160.0000000
CNST13              7.0000000
d0                  0.00000300 s
D1                  1.20000005 s
d6                  0.07142857 s
D16                 0.00020000 s
DELTA1              0.00296667 s
DELTA2              0.00192500 s
DELTA3              0.07022458 s
in0           0 sec
ST1CNT                    256
d0orig              0.00000300 s
ph1loop                     0
t1loop                      0
SFO1              600.1330006 M
NUC1                       1H
P1                      9.50 u
p2                     19.00 u
PLW1             -1.00000000 W
SFO2              150.9163903 M
NUC2                       13C
P3                     18.50 u
PLW2             -1.00000000 W
GPNAM[1]             SINE.100
GPNAM[2]             SINE.100
GPNAM[3]             SINE.100
GPNAM[4]             SINE.100
GPNAM[5]             SINE.100
```

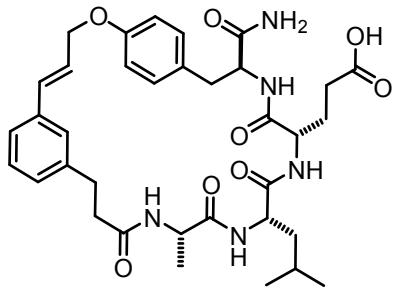
Cyclic-Ala-Leu-Glu-Tyr (17):

17

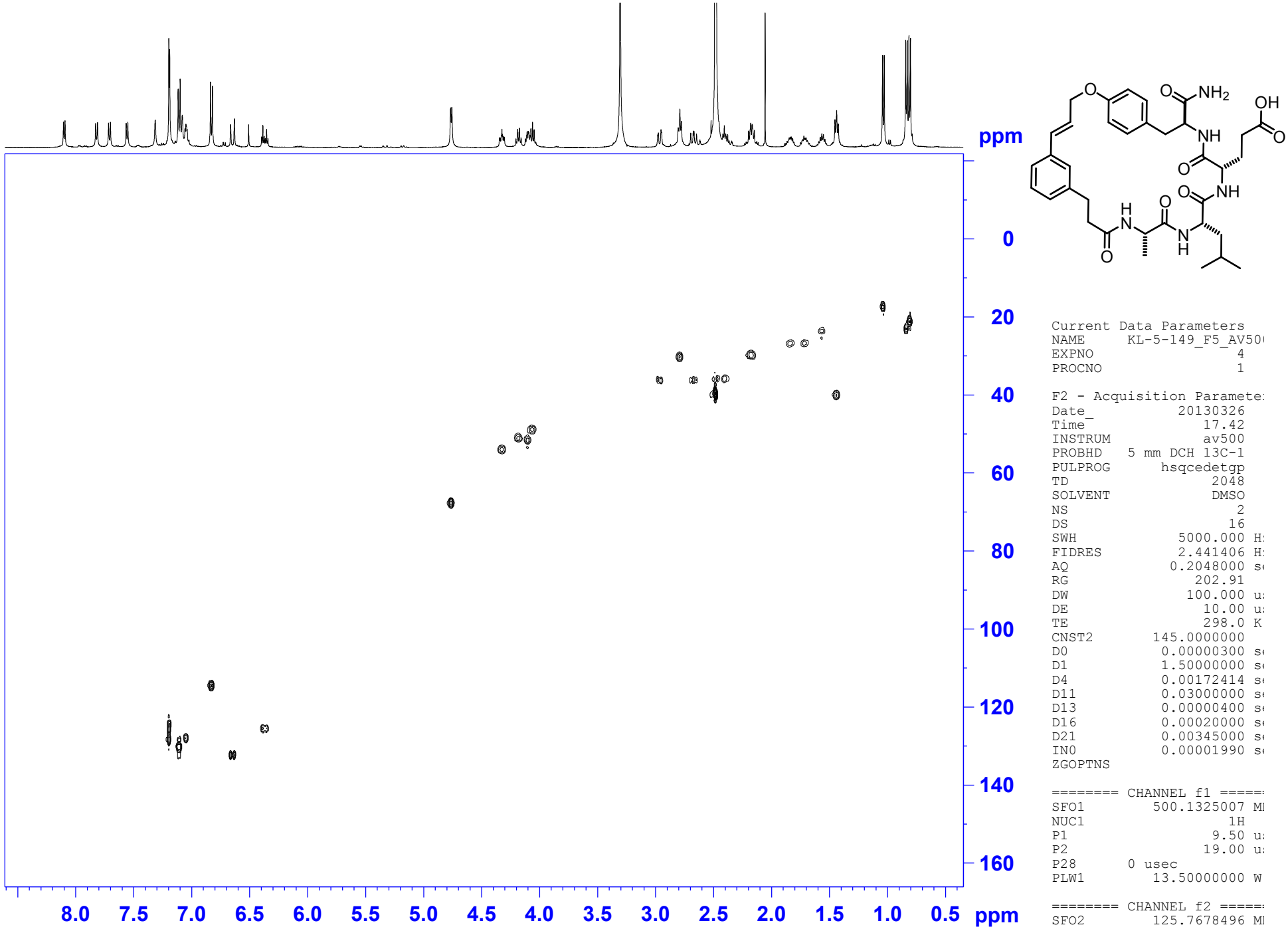



```
Current Data Parameters
NAME     KL-5-149_F5_AV500
EXPNO                   1
PROCNO                  1

F2 - Acquisition Parameters
Date_           20130326
Time               17.19
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                 14.01
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                   1H
P1                 10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                 65536
SF          500.1300146 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```

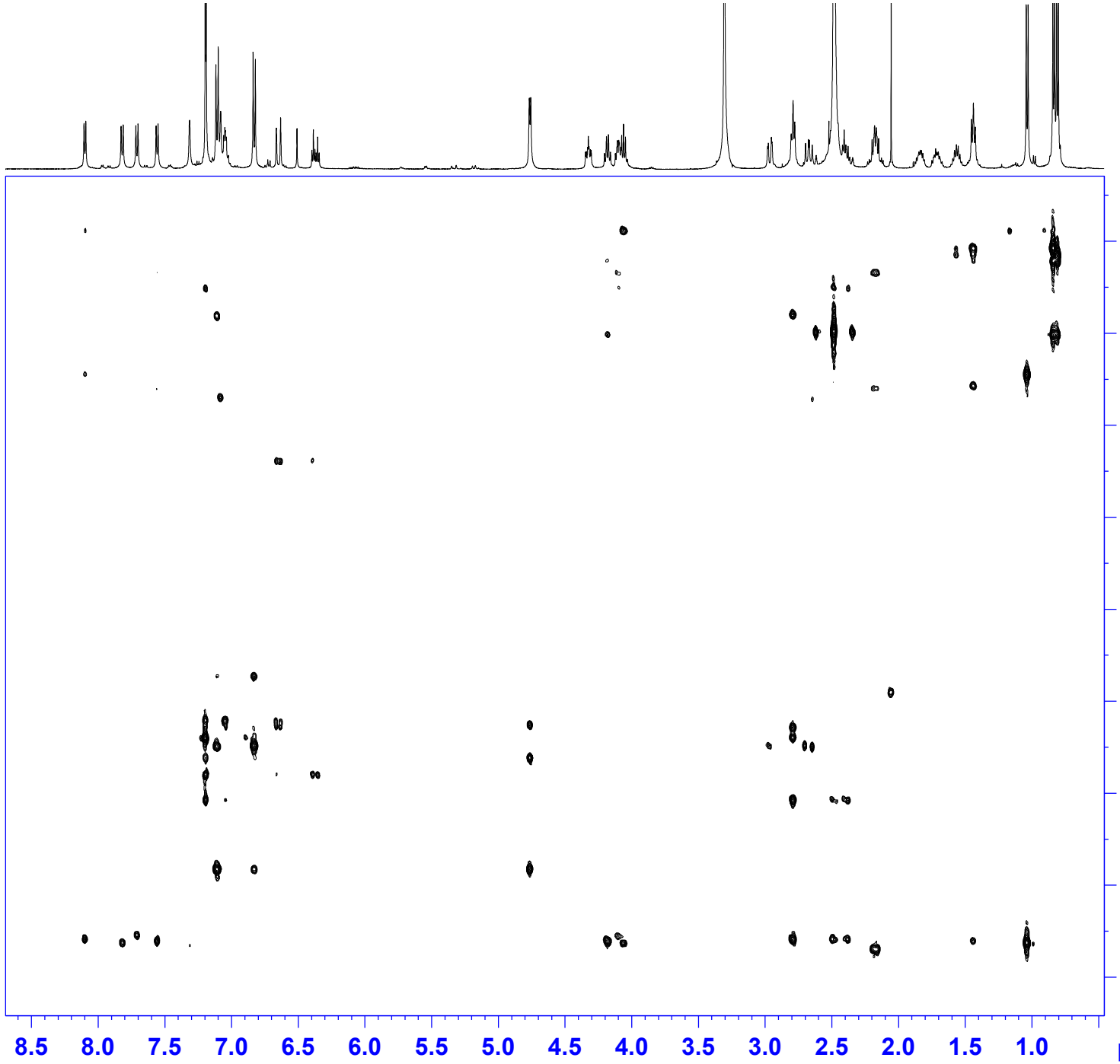


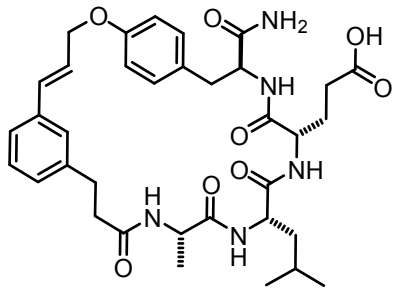



```
Current Data Parameters
NAME      KL-5-149_F5_AV50
EXPNO                    3
PROCNO                   1

F2 - Acquisition Paramete
Date_             20130326
Time                 17.21
INSTRUM              av500
PROBHD   5 mm DCH 13C-1
PULPROG       cosygpmfph
TD                    4096
SOLVENT               DMSO
NS                       2
DS                       8
SWH               5498.534 H
FIDRES            1.342415 H
AQ                0.3724629 s
RG                   202.91
DW                   90.933 u
DE                   10.00 u
TE                   298.0 K
D0               0.00007880 s
D1               2.00000000 s
D13              0.00000400 s
D16              0.00020000 s
IN0              0.00018180 s

======== CHANNEL f1 =====
SFO1          500.1327507 M
NUC1                   1H
P1                   9.50 u
P2                  19.00 u
PLW1          13.50000000 W

====== GRADIENT CHANNEL =
GPNAM[1]       SMSQ10.100
GPNAM[2]       SMSQ10.100
GPZ1                10.00 %
GPZ2                20.00 %
P16               1000.00 u

F1 - Acquisition paramete
TD                     256
SFO1            500.1328 M
FIDRES         21.486525 H
SW                 10.998 p
```



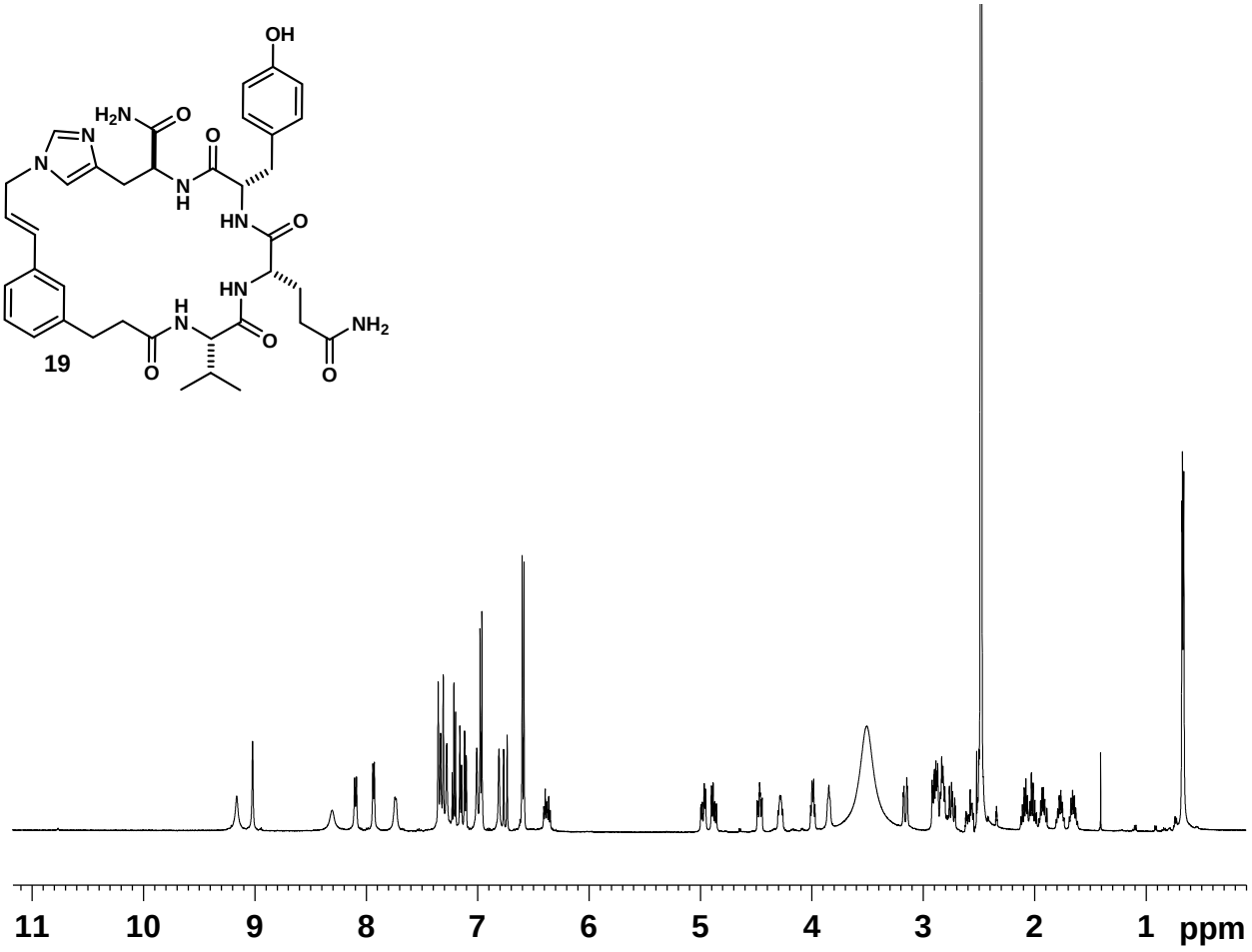

```
Current Data Parameters
NAME      KL-5-149_F5_AV50
EXPNO                    4
PROCNO                   1

F2 - Acquisition Paramete
Date_             20130326
Time                 17.42
INSTRUM              av500
PROBHD    5 mm DCH 13C-1
PULPROG       hsqcedetgp
TD                   2048
SOLVENT              DMSO
NS                      2
DS                     16
SWH              5000.000 H
FIDRES           2.441406 H
AQ               0.2048000 s
RG                  202.91
DW                 100.000 u
DE                  10.00 u
TE                  298.0 K
CNST2         145.0000000
D0             0.00000300 s
D1             1.50000000 s
D4             0.00172414 s
D11            0.03000000 s
D13            0.00000400 s
D16            0.00020000 s
D21            0.00345000 s
IN0            0.00001990 s
ZGOPTNS

======== CHANNEL f1 =====
SFO1          500.1325007 M
NUC1                   1H
P1                   9.50 u
P2                  19.00 u
P28       0 usec
PLW1         13.50000000 W

======== CHANNEL f2 =====
SFO2          125.7678496 M
NUC2                  13C
CPDPRG[2             garp
P3                   9.63 u
P4                  19.26 u
```



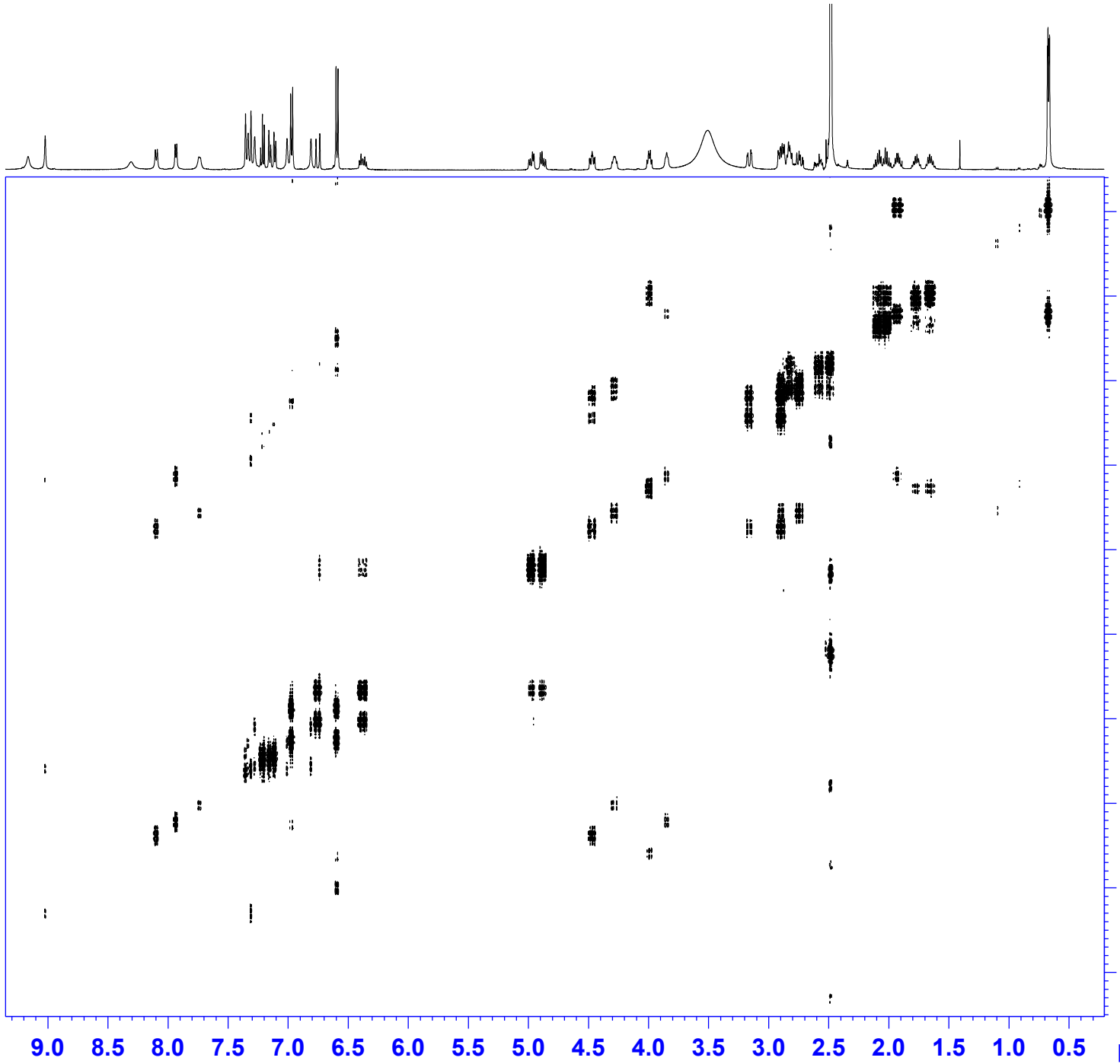


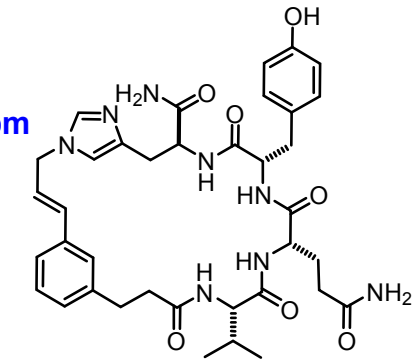

```
Current Data Parameters
NAME      KL-5-149_F5_AV50
EXPNO                    5
PROCNO                   1

F2 - Acquisition Paramete
Date_             20130326
Time                 17.57
INSTRUM              av500
PROBHD   5 mm DCH 13C-1
PULPROG     hmbcgpl2ndqf
TD                   2048
SOLVENT              DMSO
NS                      2
DS                     16
SWH              6009.615 H
FIDRES           2.934382 H
AQ               0.1703936 s
RG                 202.91
DW                 83.200 u
DE                 10.00 u
TE                 298.0 K
CNST6         120.0000000
CNST7         160.0000000
CNST13          7.0000000
D0             0.00000300 s
D1             1.50000000 s
D6             0.07142857 s
D16            0.00020000 s
IN0            0.00001990 s

======== CHANNEL f1 =====
SFO1         500.1330008 M
NUC1                1H
P1                9.50 u
P2               19.00 u
PLW1         13.50000000 W

======== CHANNEL f2 =====
SFO2         125.7703648 M
NUC2                13C
P3                9.63 u
PLW2         23.01399994 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
```

Cyclic-Val-Gln-Tyr-His (19):

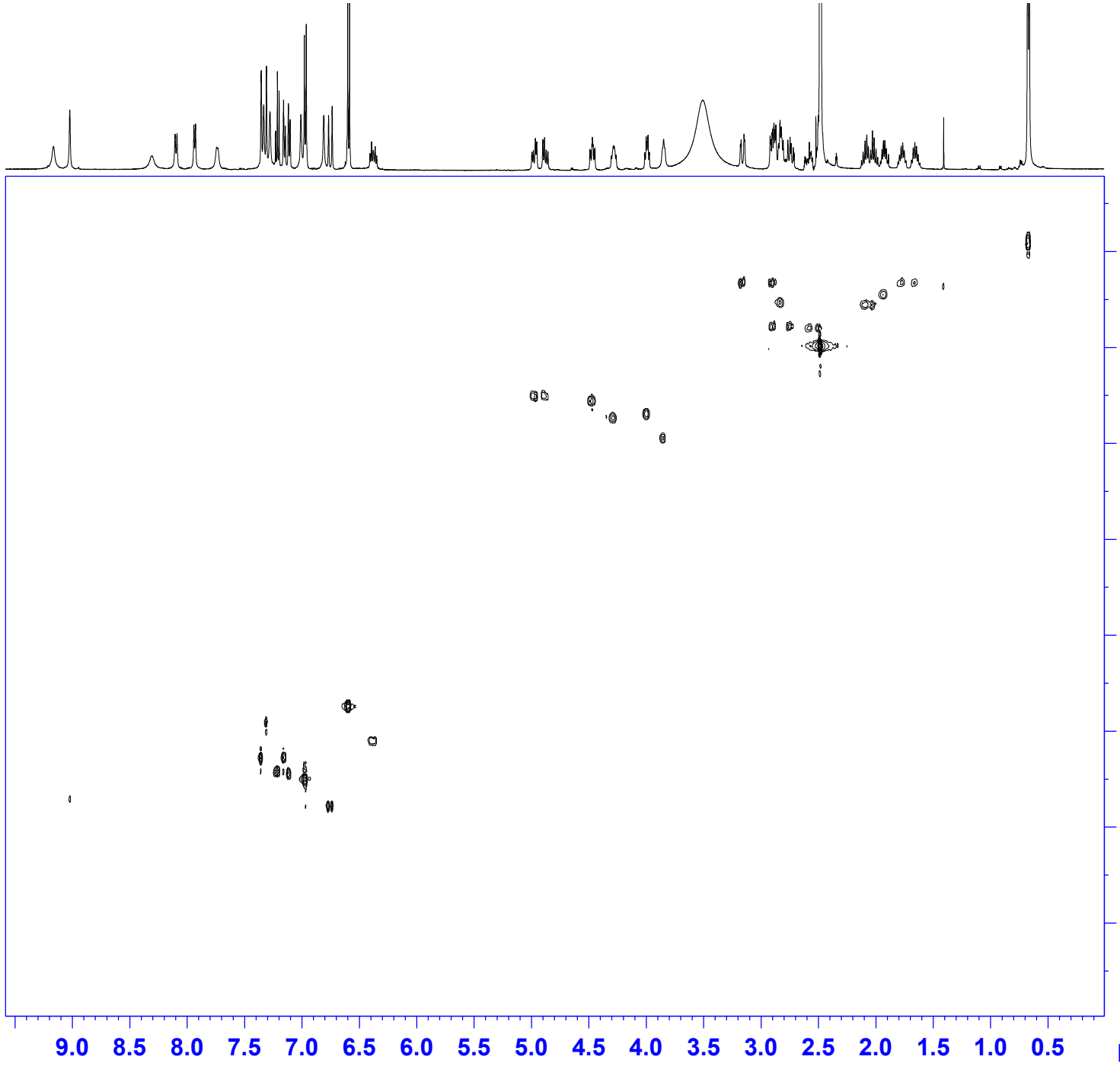


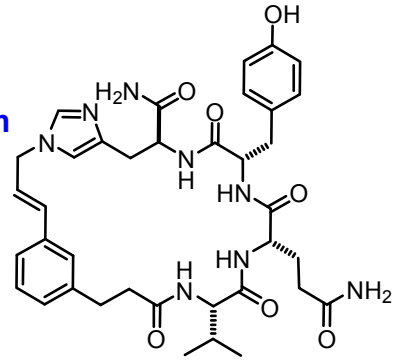

```
Current Data Parameters
NAME       KL-5-152A_F9
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130407
Time              15.08
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES        0.152588 Hz
AQ            3.2767999 sec
RG                   11
DW              50.000 usec
DE              10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                 EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



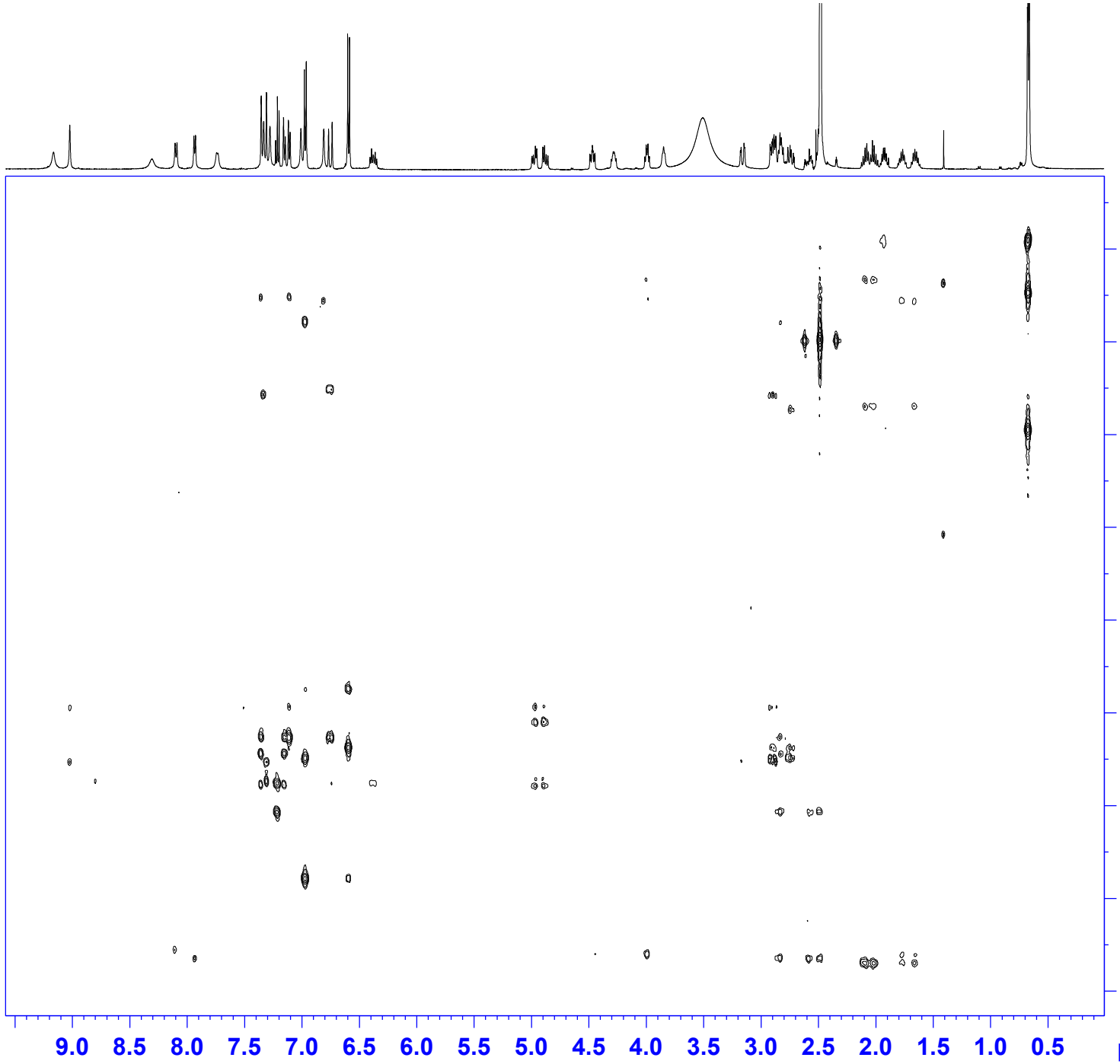


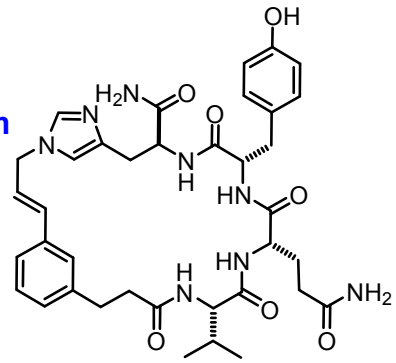

```
Current Data Parameters
NAME        KL-5-152A_F9
EXPNO                  3
PROCNO                 1

F2 - Acquisition Paramete
Date_           20130407
Time              15.11
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG       cosygpmfph
TD                 4096
SOLVENT            DMSO
NS                    2
DS                    8
SWH            5498.534 H
FIDRES         1.342415 H
AQ             0.3724629 s
RG                202.91
DW                90.933 u
DE                10.00 u
TE                298.0 K
D0            0.00007880 s
D1            2.00000000 s
D13           0.00000400 s
D16           0.00020000 s
IN0           0.00018180 s

======== CHANNEL f1 =====
SFO1         500.1327507 M
NUC1                1H
P1                9.50 u
P2               19.00 u
PLW1         13.50000000 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
GPZ1              10.00 %
GPZ2              20.00 %
P16             1000.00 u

F1 - Acquisition paramete
TD                  256
SFO1          500.1328 M
FIDRES       21.486525 H
SW              10.998 p
```






```
Current Data Parameters
NAME        KL-5-152A_F9
EXPNO                  4
PROCNO                 1

F2 - Acquisition Paramete:
Date_           20130407
Time              15.32
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      hsqcedetgp
TD                 2048
SOLVENT            DMSO
NS                    2
DS                   16
SWH           5000.000 H:
FIDRES        2.441406 H:
AQ            0.2048000 s
RG              202.91
DW              100.000 u:
DE               10.00 u:
TE               298.0 K
CNST2       145.0000000
D0           0.00000300 s
D1           1.50000000 s
D4           0.00172414 s
D11          0.03000000 s
D13          0.00000400 s
D16          0.00020000 s
D21          0.00345000 s
IN0          0.00001990 s
ZGOPTNS

======== CHANNEL f1 =====:
SFO1        500.1325007 M
NUC1                1H
P1                9.50 u:
P2               19.00 u:
P28      0 usec
PLW1        13.50000000 W

======== CHANNEL f2 =====:
SFO2        125.7678496 M
NUC2                13C
CPDPRG[2           garp
P3                9.63 u:
P4               19.26 u:
```

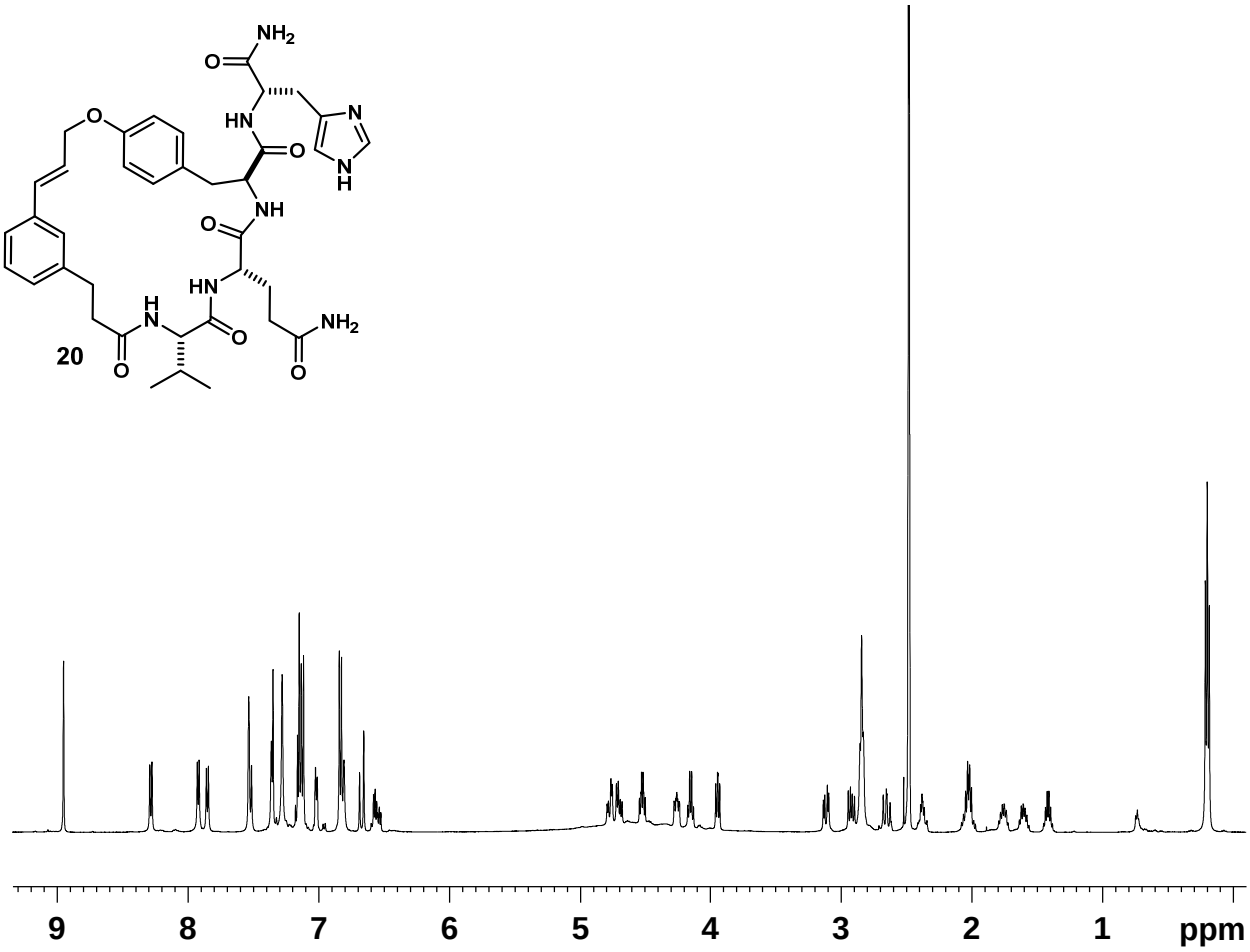




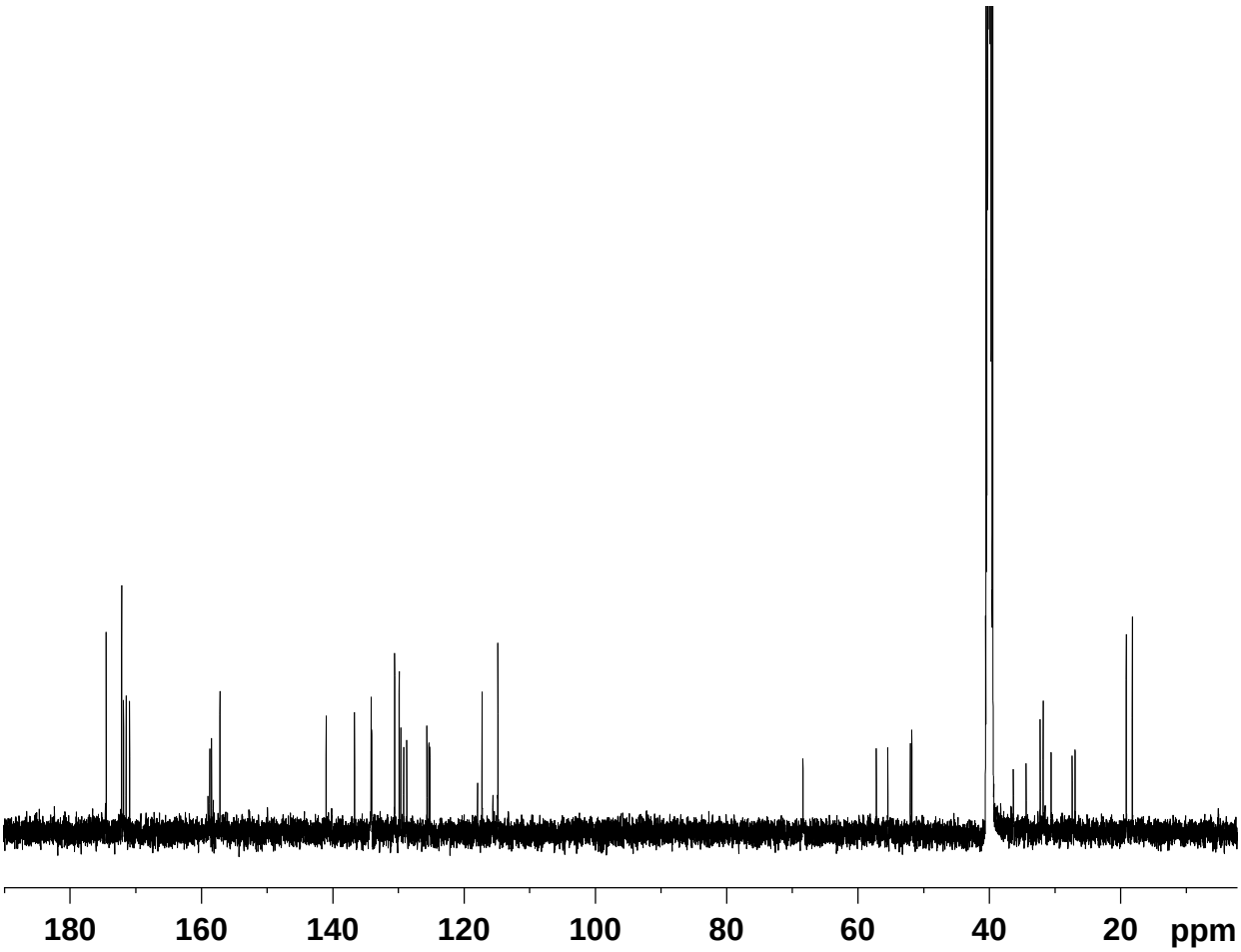

```
Current Data Parameters
NAME       KL-5-152A_F9
EXPNO                 5
PROCNO                1

F2 - Acquisition Paramete
Date_          20130407
Time              15.47
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG    hmbcgpl2ndqf
TD                2048
SOLVENT            DMSO
NS                    2
DS                   16
SWH            6009.615 H
FIDRES         2.934382 H
AQ             0.1703936 s
RG                202.91
DW                83.200 u
DE                10.00 u
TE                298.0 K
CNST6       120.0000000
CNST7       160.0000000
CNST13        7.0000000
D0            0.00000300 s
D1            1.50000000 s
D6            0.07142857 s
D16           0.00020000 s
IN0           0.00001990 s

======== CHANNEL f1 =====
SFO1        500.1330008 M
NUC1                1H
P1                9.50 u
P2               19.00 u
PLW1       13.50000000 W

======== CHANNEL f2 =====
SFO2        125.7703648 M
NUC2               13C
P3                9.63 u
PLW2       23.01399994 W

====== GRADIENT CHANNEL =
GPNAM[1]     SMSQ10.100
GPNAM[2]     SMSQ10.100
```

Cyclic-Val-Gln-Tyr-His (20):

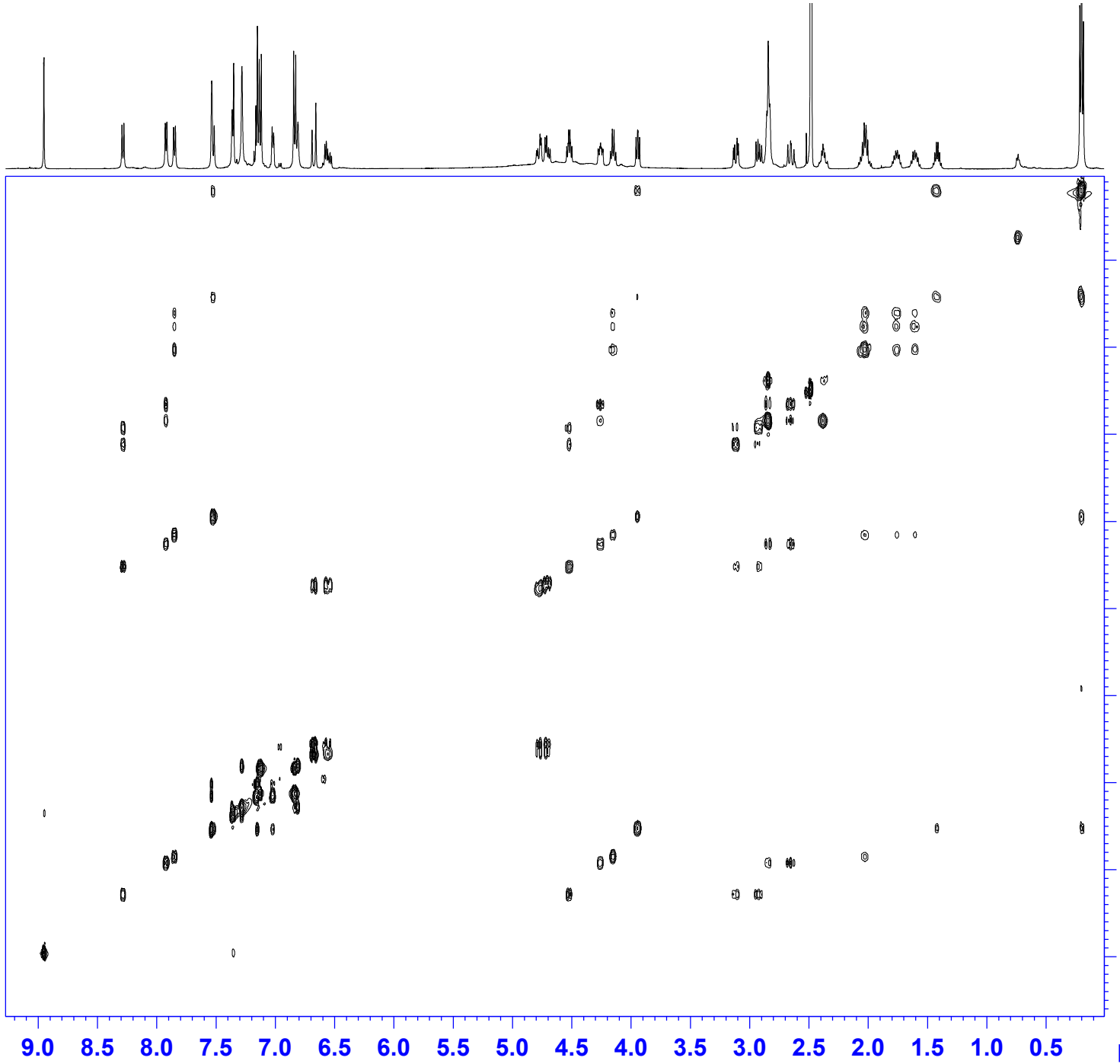
20

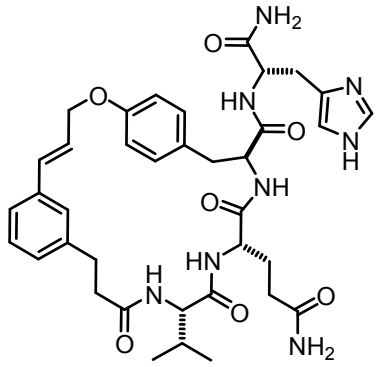



```
Current Data Parameters
NAME          KL-5-159B
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130416
Time              19.50
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                 28.6
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

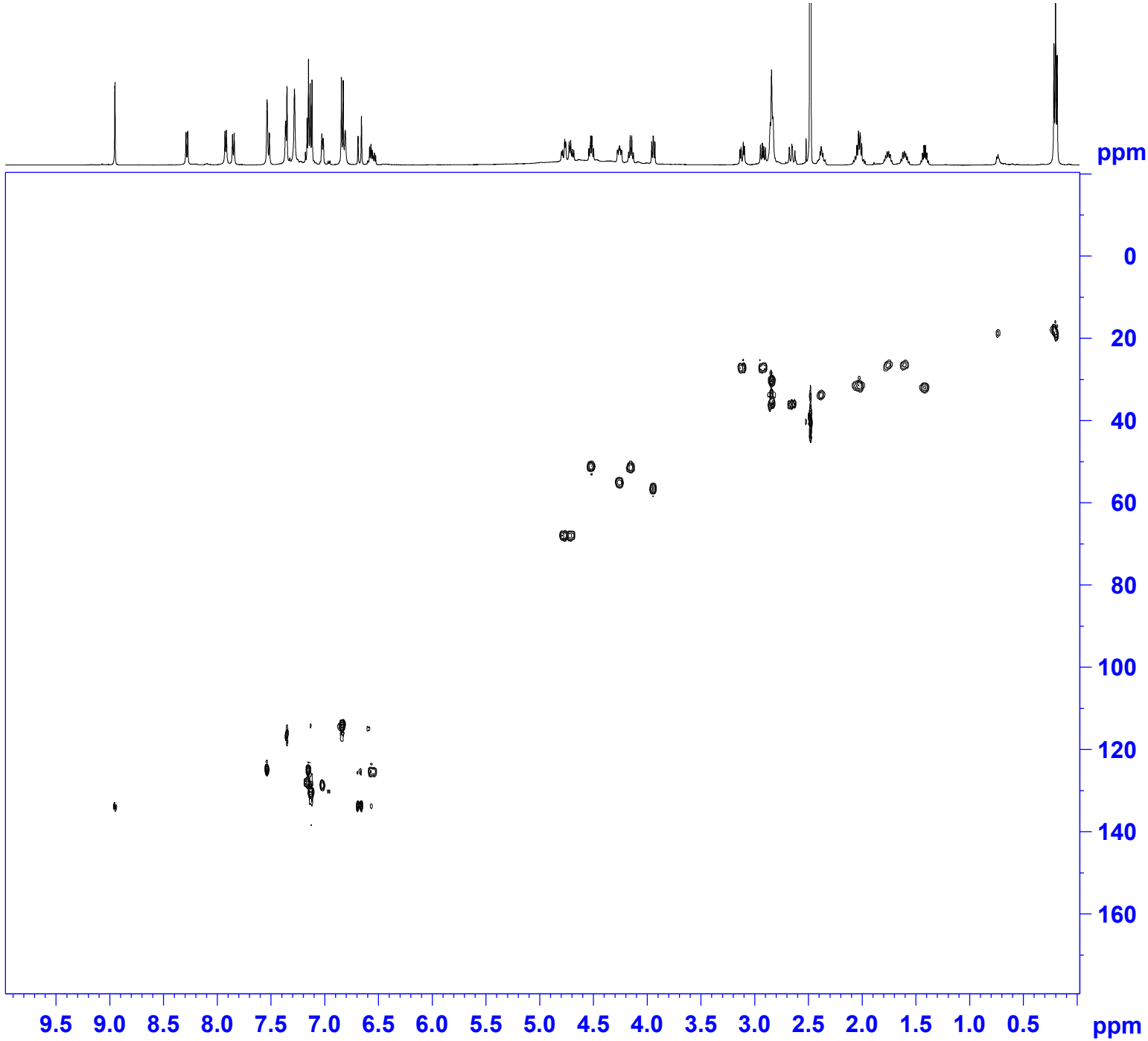


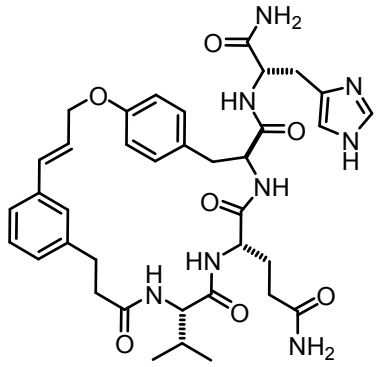

```
Current Data Parameters
NAME          KL-5-159B
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130416
Time              19.54
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  128
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE               18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                 13C
P1                9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```



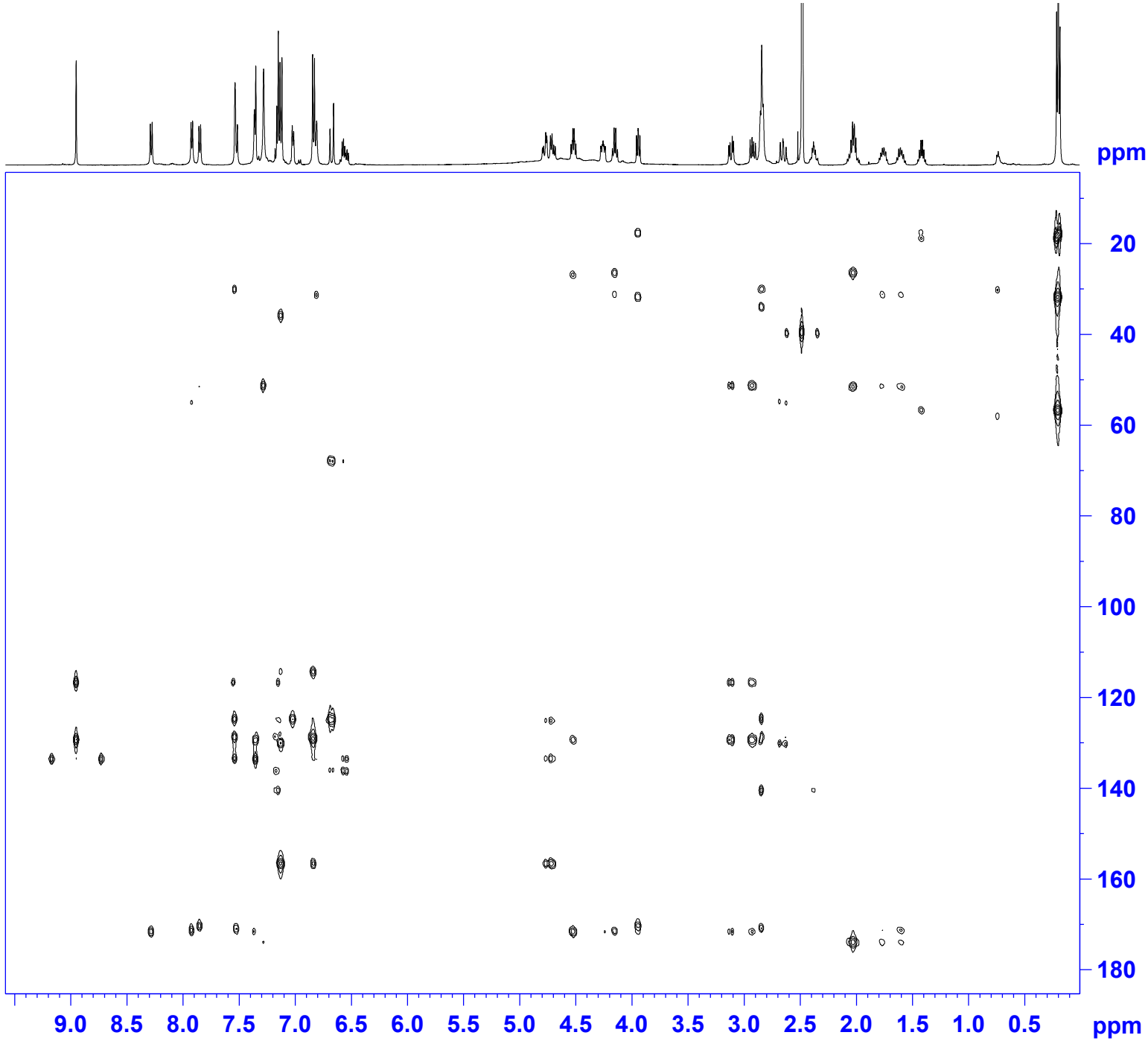


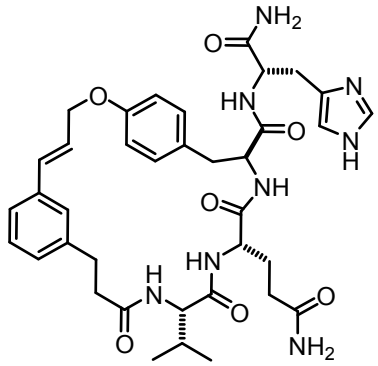

```
Current Data Parameters
NAME          KL-5-159B
EXPNO                 5
PROCNO                1

F2 - Acquisition Parameter
Date_          20130417
Time               19.13
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG     mlevetgp.js
TD                 2048
SOLVENT            DMSO
NS                    2
DS                    8
SWH             6009.615 H
FIDRES          2.934382 H
AQ              0.1703936 s
RG                 37.94
DW                83.200 u
DE                10.00 u
TE                298.0 K
D0             0.00000300 s
D1             2.00000000 s
D9             0.06000000 s
D11            0.03000000 s
D12            0.00002000 s
D16            0.00020000 s
IN0            0.00016660 s
L1                    24

======== CHANNEL f1 =====
SFO1        500.1330008 M
NUC1                1H
P1                 9.50 u
P2                19.00 u
P5                26.68 u
P6                40.00 u
P7                80.00 u
P17             2500.00 u
PLW1        13.50000000 W
PLW10        0.84375000 W

====== GRADIENT CHANNEL =
GPNAM[1]       SINE.100
GPNAM[2]       SINE.100
GPZ1              30.00 %
```






```
Current Data Parameters
NAME          KL-5-159B
EXPNO                 6
PROCNO                1

F2 - Acquisition Parameter
Date_          20130417
Time_             19.33
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      hsqcedetgp
TD                2048
SOLVENT           DMSO
NS                   2
DS                  16
SWH           5000.000 H
FIDRES        2.441406 H
AQ            0.2048000 s
RG              202.91
DW              100.000 u
DE               10.00 u
TE               298.0 K
CNST2       145.0000000
D0           0.00000300 s
D1           1.50000000 s
D4           0.00172414 s
D11          0.03000000 s
D13          0.00000400 s
D16          0.00020000 s
D21          0.00345000 s
IN0          0.00001990 s
ZGOPTNS

======== CHANNEL f1 =====
SFO1        500.1325007 M
NUC1               1H
P1                9.50 u
P2               19.00 u
P28      0 usec
PLW1       13.50000000 W

======== CHANNEL f2 =====
SFO2        125.7678496 M
NUC2               13C
CPDPRG[2          garp
P3                9.63 u
P4               19.26 u
```

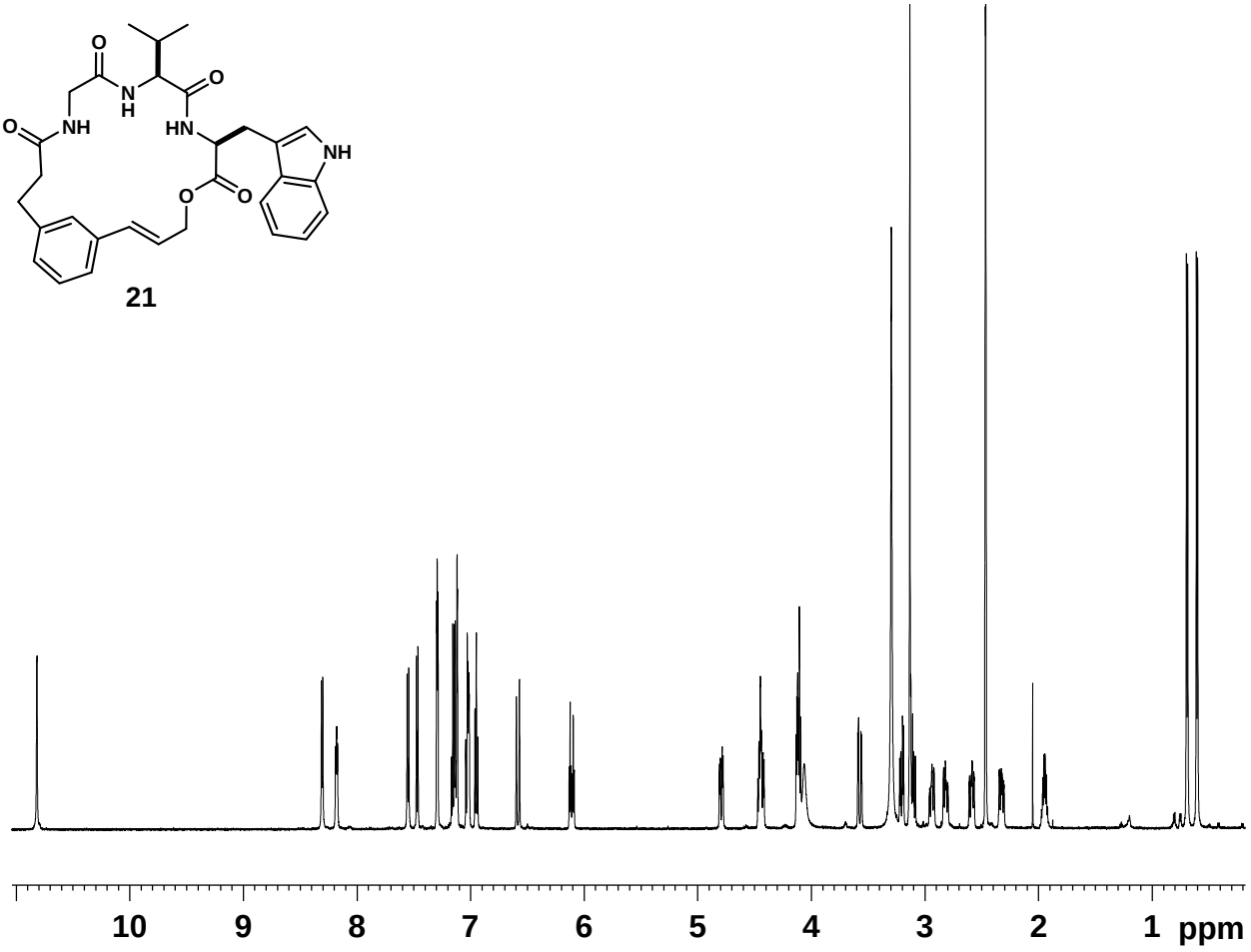




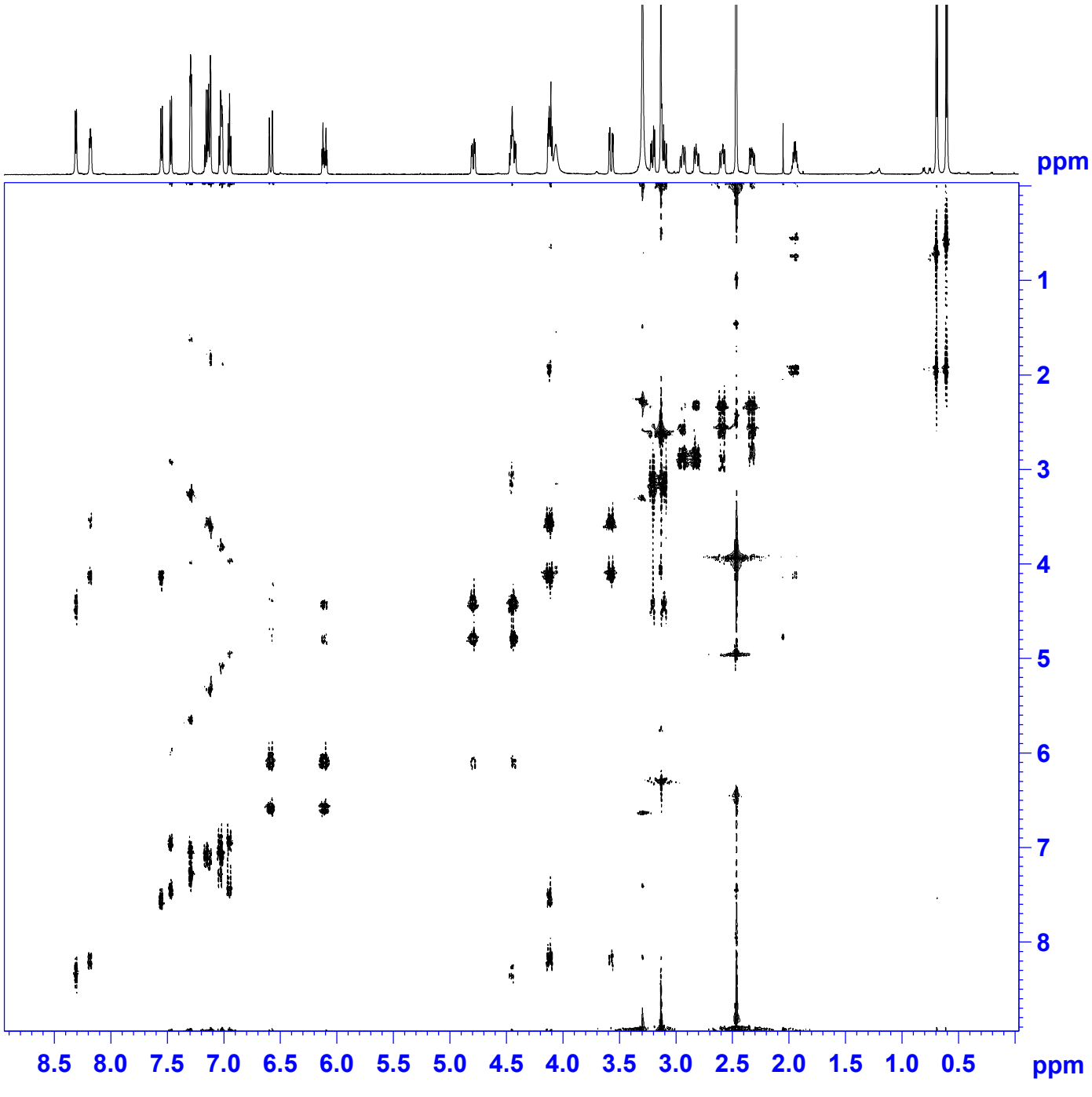

```
Current Data Parameters
NAME          KL-5-159B
EXPNO                 7
PROCNO                1

F2 - Acquisition Paramete
Date_          20130417
Time               19.48
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG   hmbcgpl2ndqf
TD                 2048
SOLVENT            DMSO
NS                    4
DS                   16
SWH            6009.615 H
FIDRES         2.934382 H
AQ             0.1703936 s
RG                202.91
DW                83.200 u
DE                10.00 u
TE                298.0 K
CNST6        120.0000000
CNST7        160.0000000
CNST13         7.0000000
D0           0.00000300 s
D1           1.50000000 s
D6           0.07142857 s
D16          0.00020000 s
IN0          0.00001990 s

======== CHANNEL f1 =====
SFO1        500.1330008 M
NUC1                1H
P1                9.50 u
P2               19.00 u
PLW1        13.50000000 W

======== CHANNEL f2 =====
SFO2        125.7703648 M
NUC2                13C
P3                9.63 u
PLW2        23.01399994 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
```

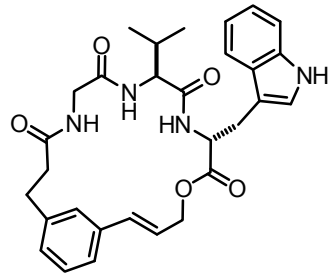
Cyclic-Gly-Val-Trp (21):

21

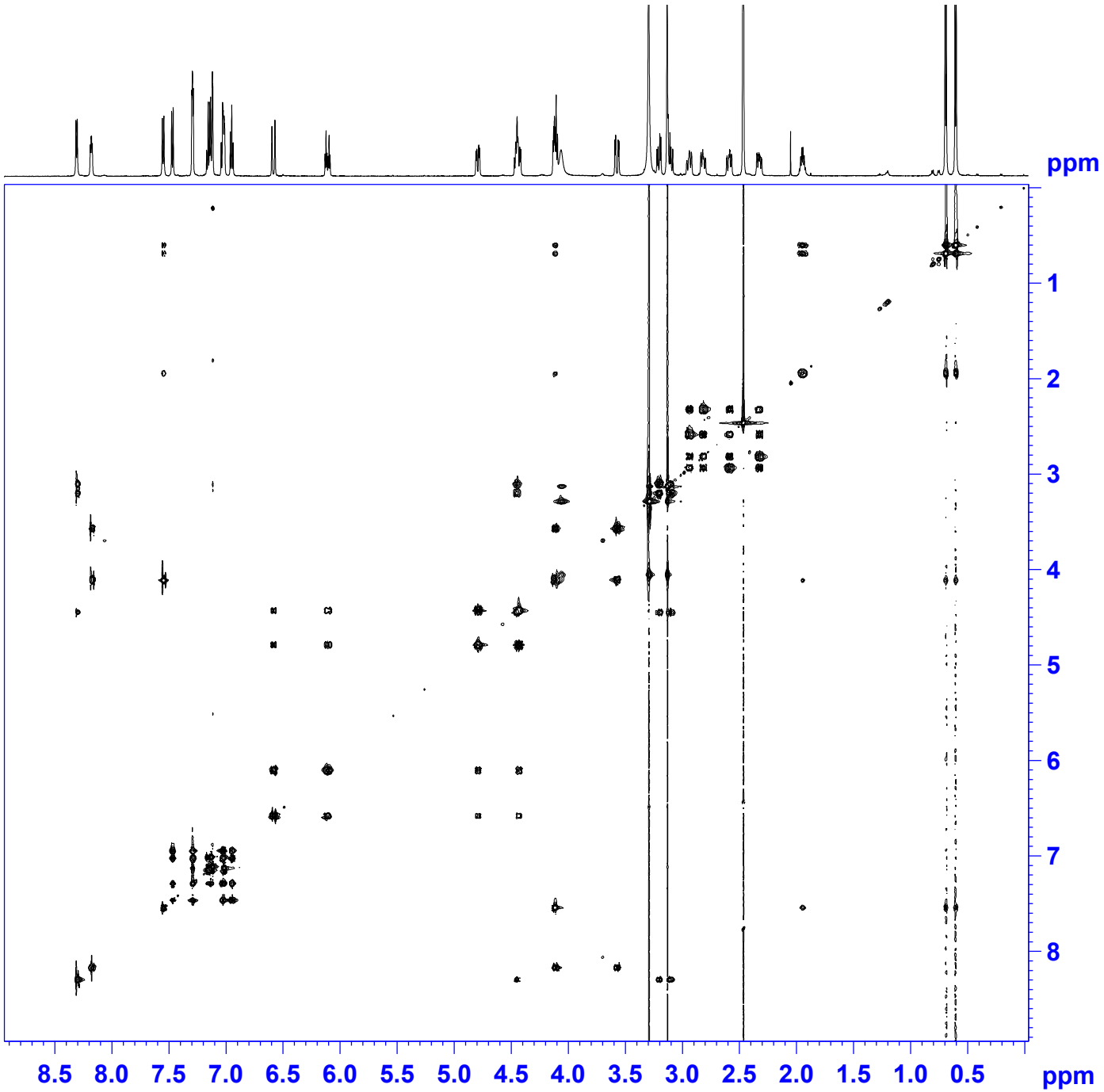


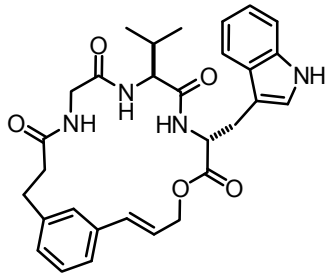

```
Current Data Parameters
NAME            KL-4-189
EXPNO                  3
PROCNO                 1

F2 - Acquisition Parameters
Date_           20120423
Time               11.12
INSTRUM            av600
PROBHD   5 mm TBI5
PULPROG                zg
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                   181
DW               40.400 usec
DE                6.50 usec
TE                295.7 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 9.50 usec
PL1               -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                 65536
SF          600.1300273 MHz
WDW                   EM
SSB      0
LB       0 Hz
GB       0
PC                 1.00
```



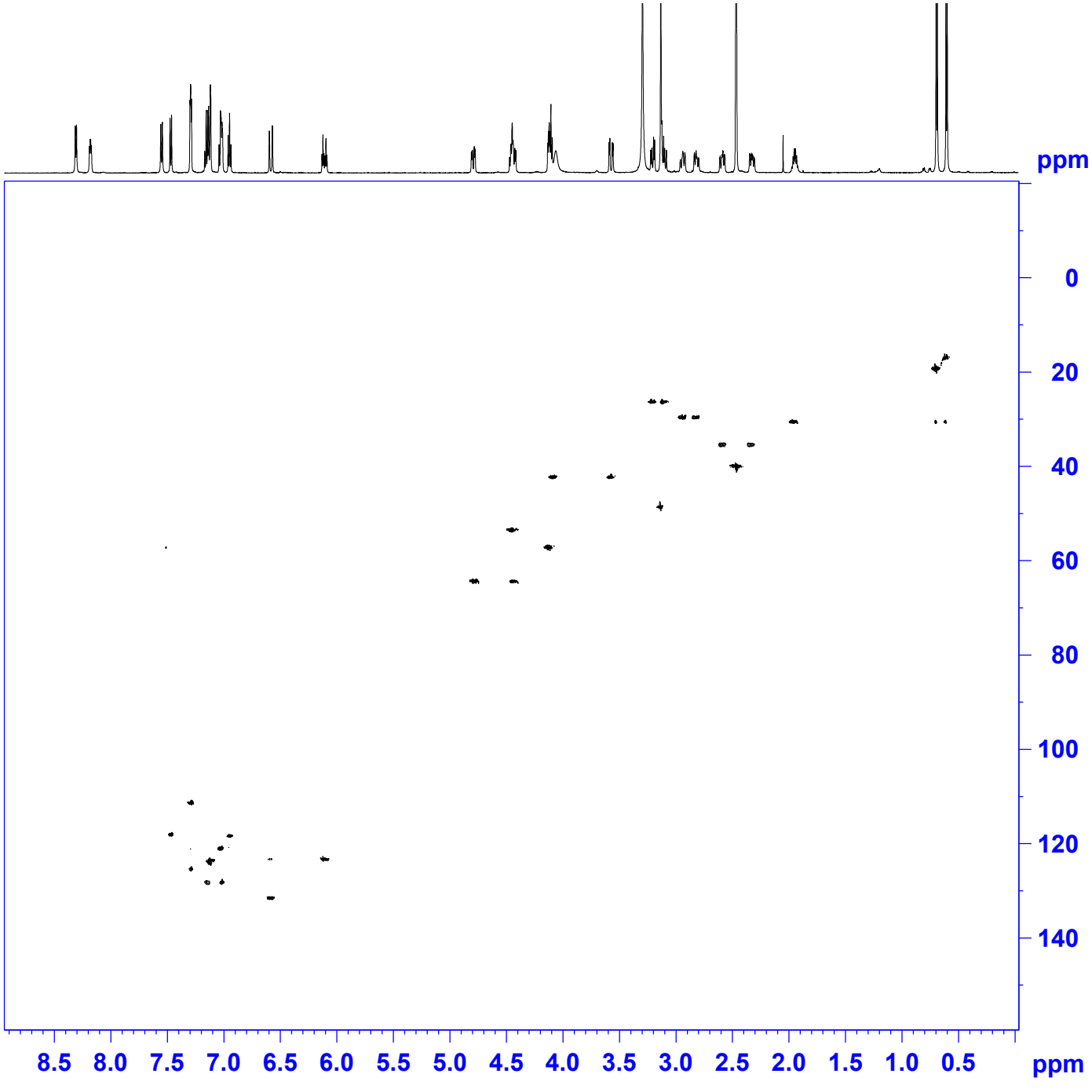


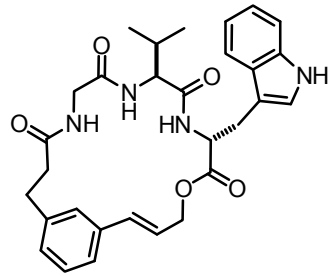

```
Current Data Parameters
NAME                  KL-4-189
EXPNO                        4
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20120423
Time                     11.15
INSTRUM                  av600
PROBHD    5 mm TBI5
PULPROG           cosygpmfph
TD                        4096
SOLVENT                   DMSO
NS                           2
DS                           4
SWH                   5387.931 Hz
FIDRES                1.315413 Hz
AQ                    0.3801088 sec
RG                         181
DW                       92.800 usec
DE                        6.50 usec
TE                       295.7 K
d0                -0.00001210 sec
D1                 2.00000000 sec
d13                0.00000400 sec
D16                0.00020000 sec
DELTA              0.00120400 sec
in0          0 sec
ST1CNT                     256
d0orig            -0.00001210 sec
ph1loop                      0
t1loop                       0
SFO1              600.1327006 MHz
```



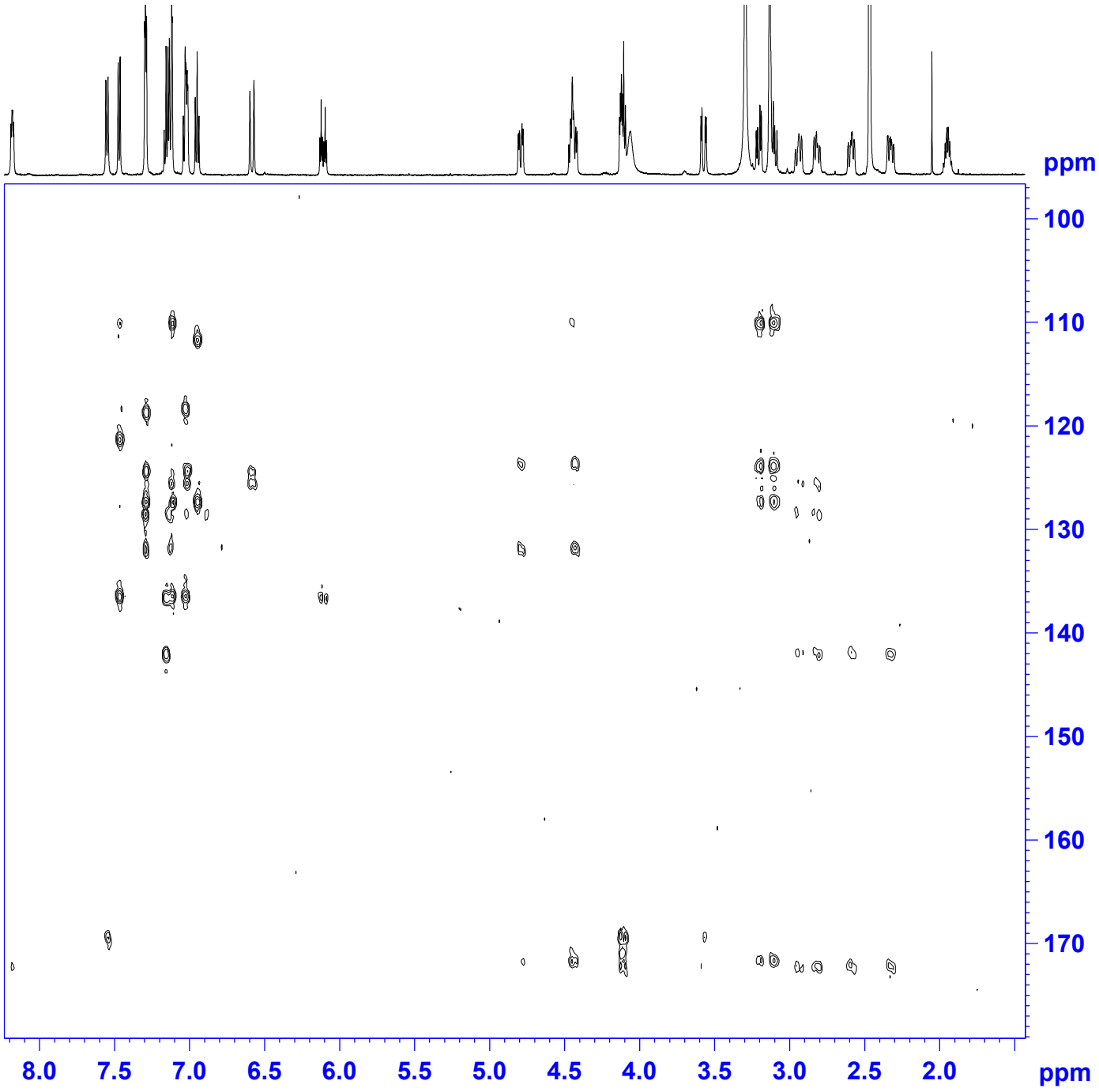


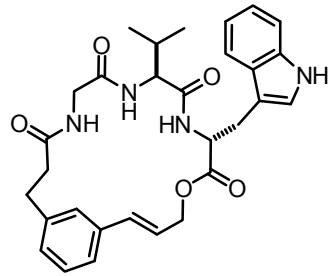

```
Current Data Parameters
NAME                  KL-4-189
EXPNO                        5
PROCNO                       1

F1 - Acquisition parameters
TD                         600
SFO1                600.1327 MHz
FIDRES             10.602203 Hz
SW                    10.600 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                        1024
SF               600.1300273 MHz
WDW                      QSINE
SSB                          2
LB          0 Hz
GB          0
PC                       1.00

F1 - Processing parameters
SI                        1024
MC2            echo-antiecho
SF               600.1300273 MHz
WDW                      QSINE
SSB                          2
LB          0 Hz
GB          0
```






```
Current Data Parameters
NAME                  KL-4-189
EXPNO                        6
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20120423
Time                     12.11
INSTRUM                  av600
PROBHD     5 mm TBI5
PULPROG      hsqcetgpsisp
TD                       2048
SOLVENT                   DMSO
NS                           8
DS                          16
SWH                  5387.931 Hz
FIDRES               2.630826 Hz
AQ                   0.1900544 sec
RG                       26008
DW                     92.800 usec
DE                      6.00 usec
TE                     295.8 K
CNST2               145.0000000
d0                   0.00000300 sec
D1                   1.20000005 sec
d4                   0.00172414 sec
d11                  0.03000000 sec
D16                  0.00020000 sec
D24                  0.00086200 sec
DELTA                0.00127500 sec
DELTA1               0.00120659 sec
DELTA2               0.00097414 sec
in0          0 sec
```

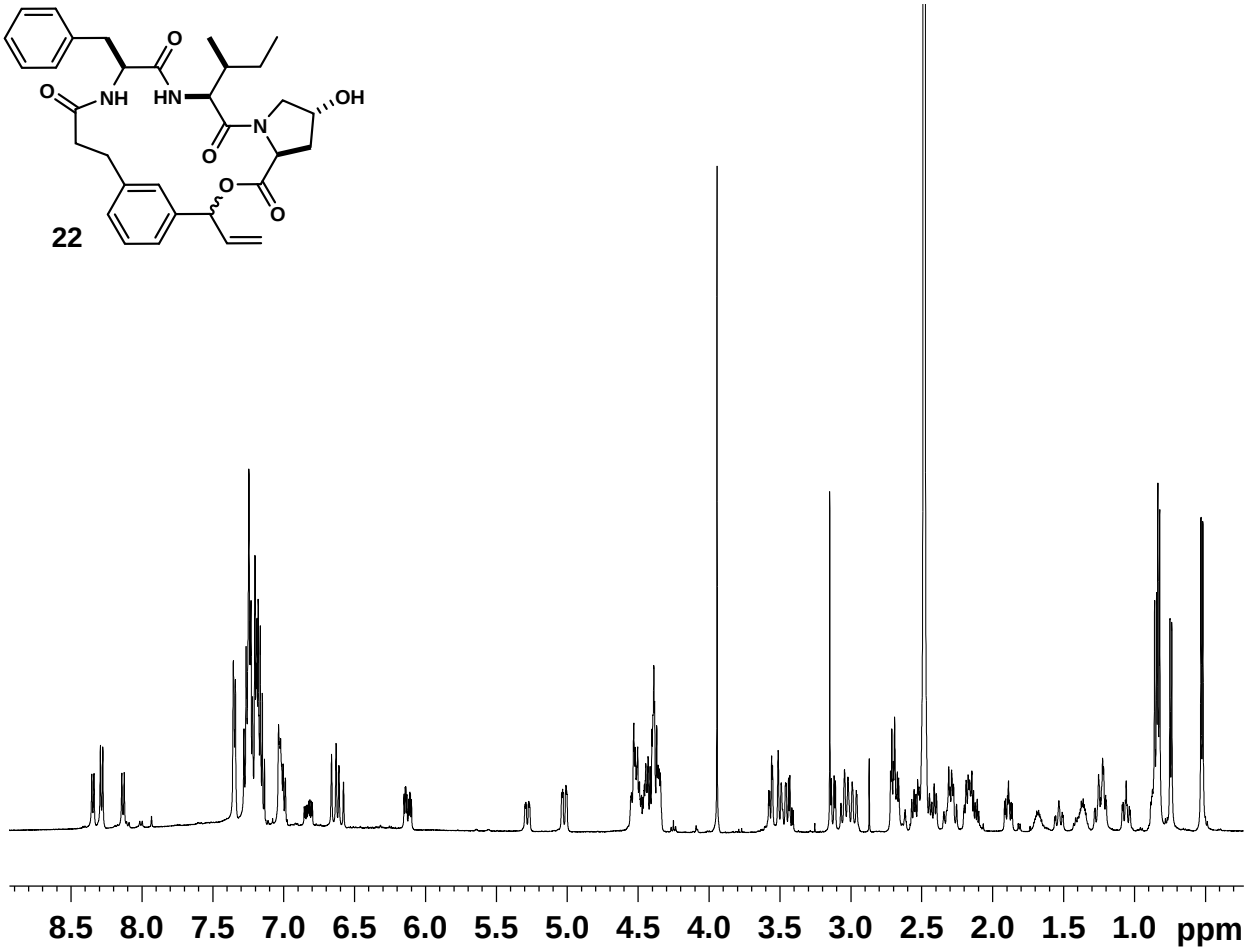




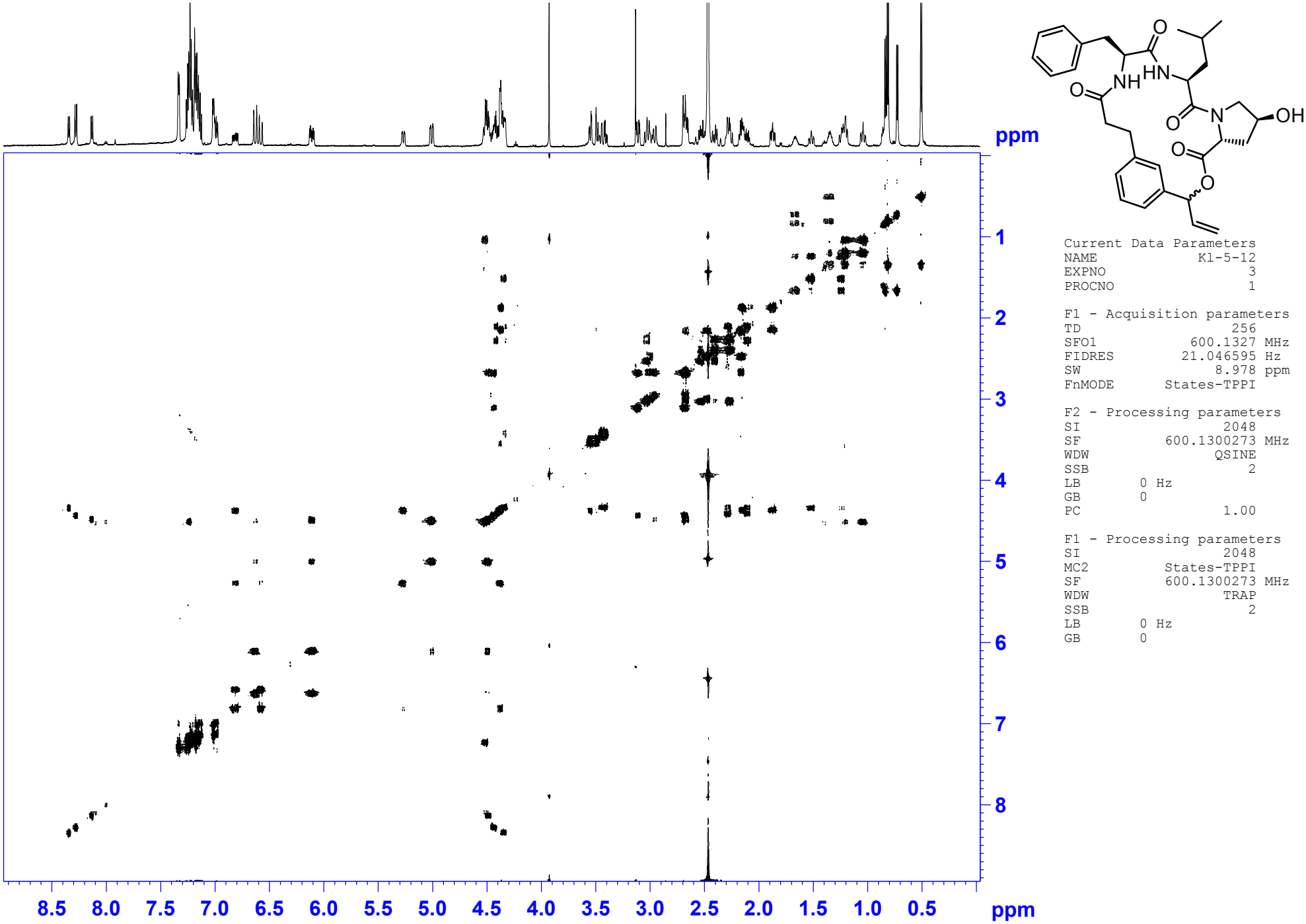

```
Current Data Parameters
NAME                  KL-4-189
EXPNO                        7
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20120423
Time                     12.59
INSTRUM                 av600
PROBHD    5 mm TBI5
PULPROG     hmbcgpl2ndqf
TD                        2048
SOLVENT                   DMSO
NS                           8
DS                          16
SWH                  6613.757 Hz
FIDRES               3.229373 Hz
AQ                   0.1548288 sec
RG                       29193
DW                      75.600 usec
DE                       6.50 usec
TE                      297.8 K
CNST6               120.0000000
CNST7               160.0000000
CNST13                7.0000000
d0                    0.00000300 sec
D1                    1.20000005 sec
d6                    0.07142857 sec
D16                   0.00020000 sec
DELTA1                0.00296667 sec
DELTA2                0.00192500 sec
DELTA3                0.07022458 sec
in0          0 sec
```

Cyclic-Phe-Leu-Hyp (22):

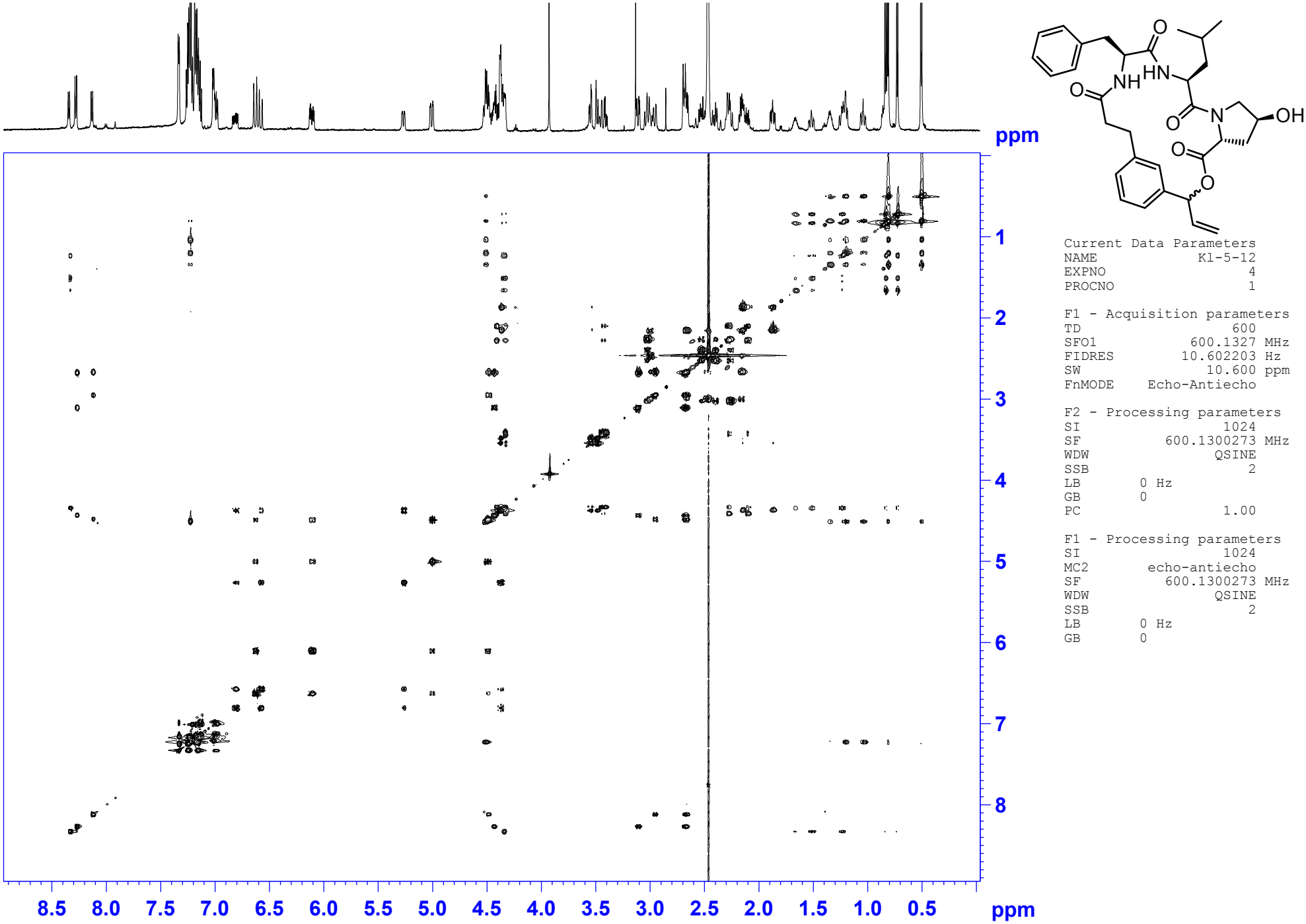
22




```
Current Data Parameters
NAME      KL-5-12_AV500
EXPNO                1
PROCNO               1

F2 - Acquisition Parameters
Date_           20120821
Time               17.22
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG               202.91
DW               50.000 usec
DE               10.00 usec
TE               298.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300146 MHz
WDW                   EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```




```
Current Data Parameters
NAME                  Kl-5-12
EXPNO                       3
PROCNO                      1

F1 - Acquisition parameters
TD                        256
SFO1              600.1327 MHz
FIDRES          21.046595 Hz
SW                  8.978 ppm
FnMODE        States-TPPI

F2 - Processing parameters
SI                       2048
SF             600.1300273 MHz
WDW                     QSINE
SSB                         2
LB          0 Hz
GB          0
PC                      1.00

F1 - Processing parameters
SI                       2048
MC2             States-TPPI
SF             600.1300273 MHz
WDW                     TRAP
SSB                         2
LB          0 Hz
GB          0
```

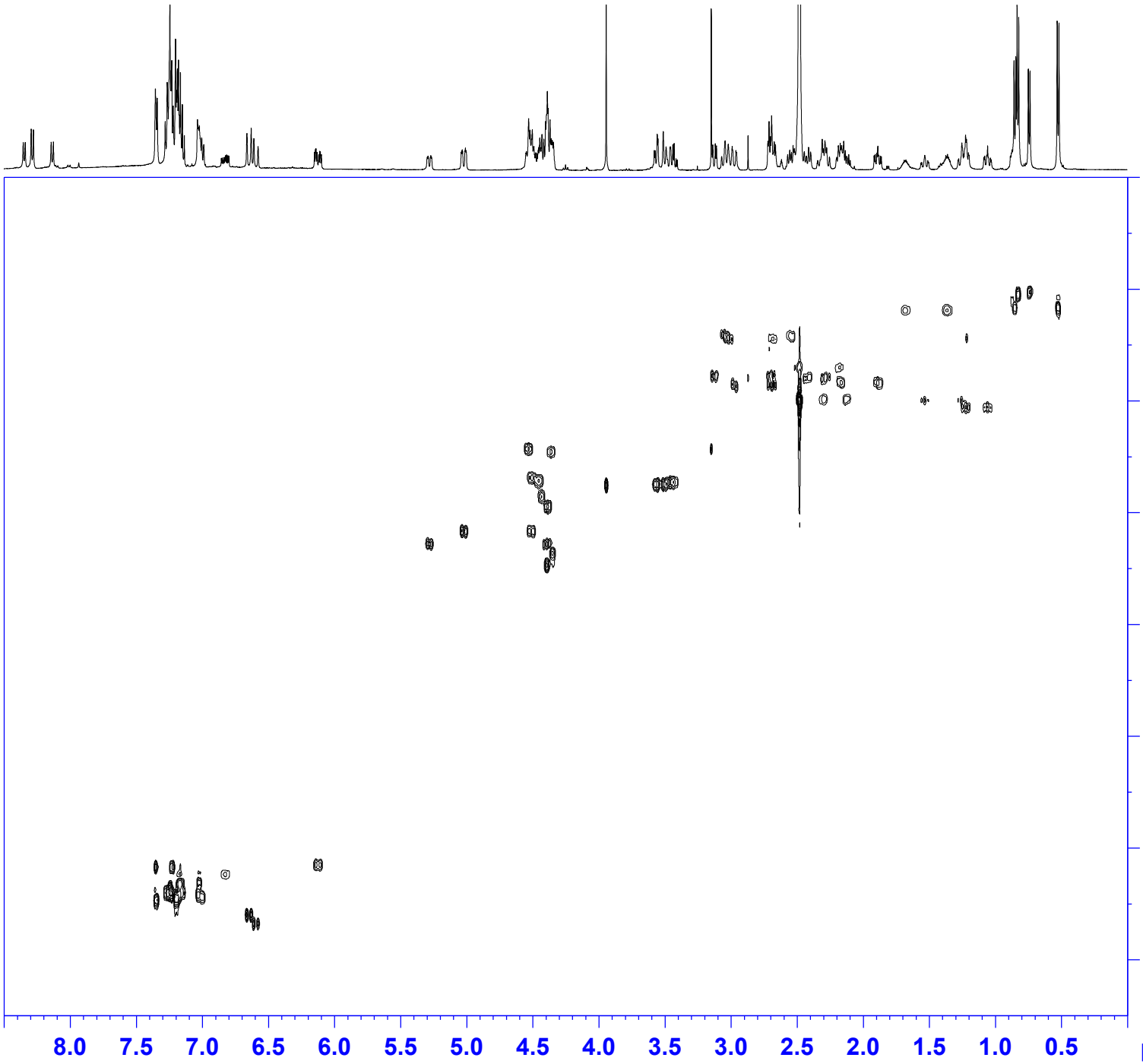


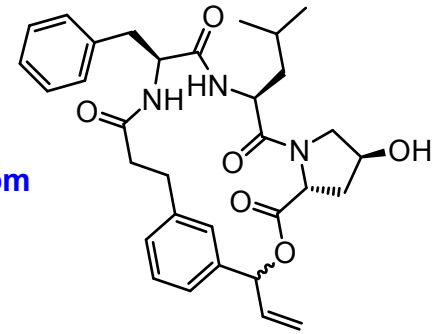
Current Data Parameters
NAME Kl-5-12
EXPNO 4
PROCNO 1

F1 - Acquisition parameters
TD 600
SFO1 600.1327 MHz
FIDRES 10.602203 Hz
SW 10.600 ppm
FnMODE Echo-Antiecho

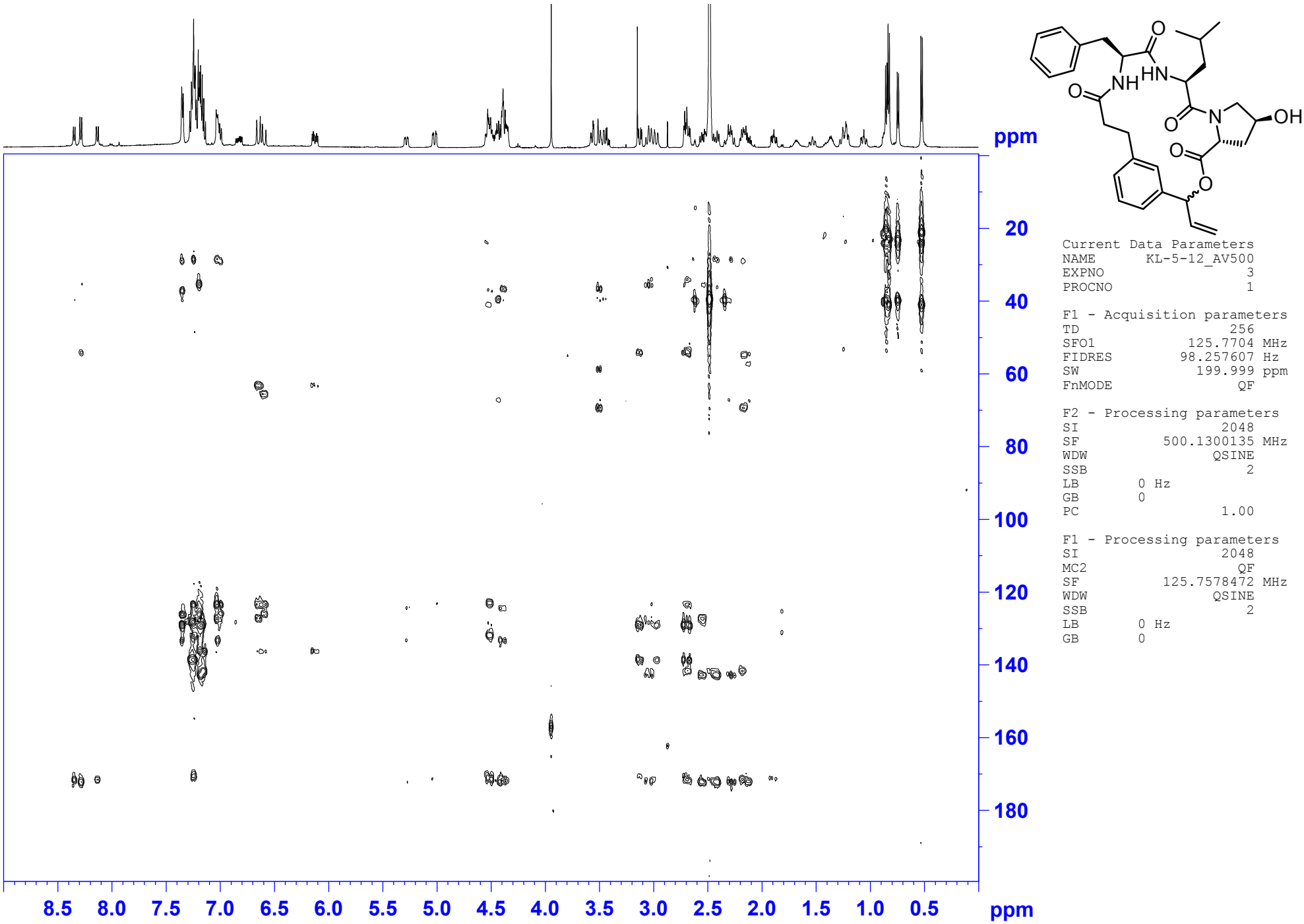
F2 - Processing parameters
SI 1024
SF 600.1300273 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0
PC 1.00

F1 - Processing parameters
SI 1024
MC2 echo-antiecho
SF 600.1300273 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0





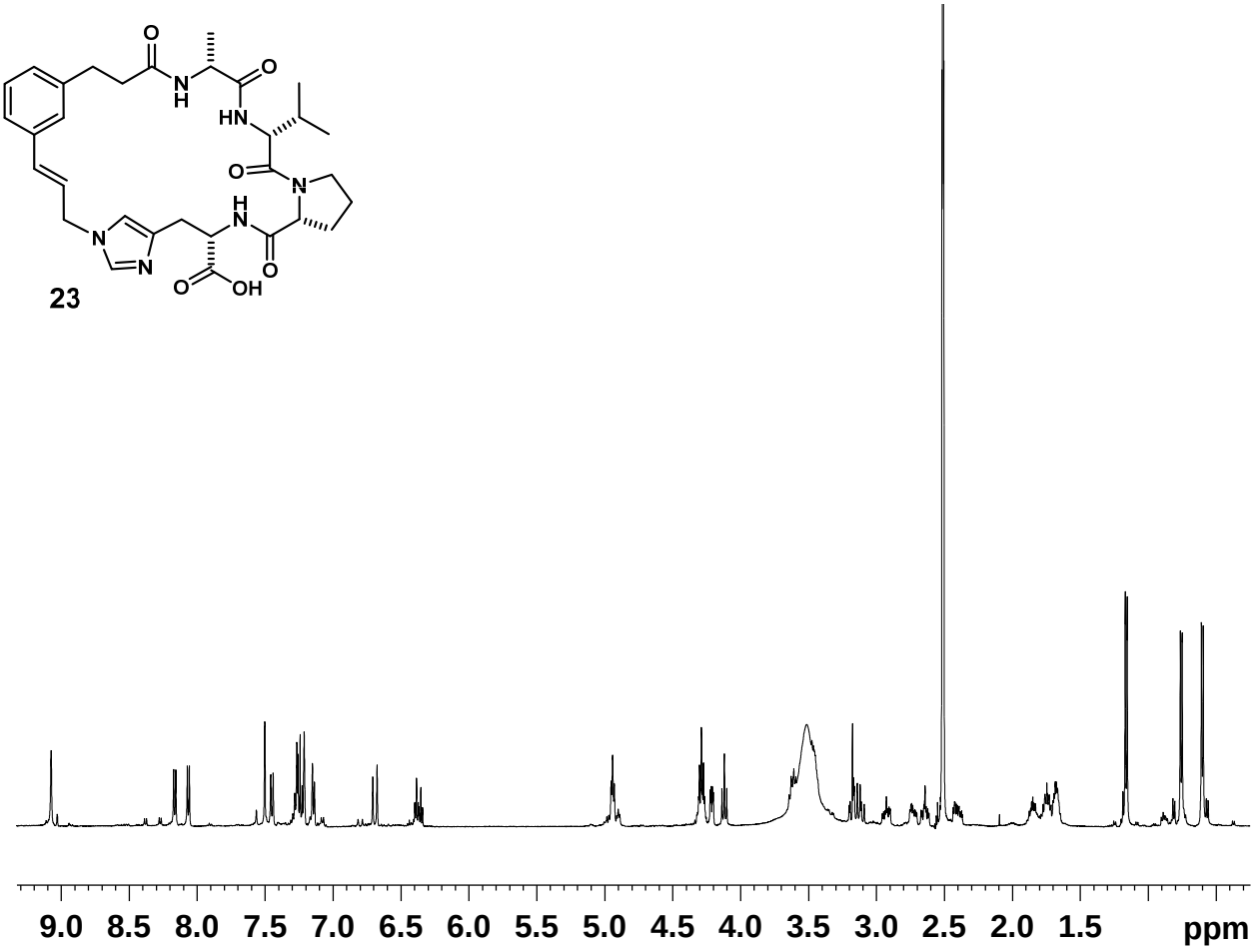

```
Current Data Parameters
NAME       KL-5-12_AV500
EXPNO                  2
PROCNO                 1

F2 - Acquisition Paramete:
Date_           20120821
Time              17.24
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      hsqcedetgp
TD                 2048
SOLVENT            DMSO
NS                    4
DS                   16
SWH            5000.000 H:
FIDRES         2.441406 H:
AQ             0.2048000 s
RG               202.91
DW              100.000 u:
DE                10.00 u:
TE                298.0 K
CNST2        145.0000000
d0            0.00000300 s
D1            1.50000000 s
d4            0.00172414 s
d11           0.03000000 s
d13           0.00000400 s
D16           0.00020000 s
D21           0.00345000 s
DELTA         0.00222400 s
DELTA1        0.00071614 s
in0       0 sec
ST1CNT              128
ZGOPTNS
d0orig        0.00000300 s
ph1loop               0
t1loop                0
SFO1         500.1325007 M
NUC1                 1H
P1                10.00 u:
p2                20.00 u:
P28       0 usec
PLW1         13.50000000 W
SFO2         125.7678496 M
NUC2                13C
CPDPRG[2           garp
P3                 9.63 u:
p4                19.26 u:
PCPD2             70.00 u:
PLW2         23.01399994 W
```



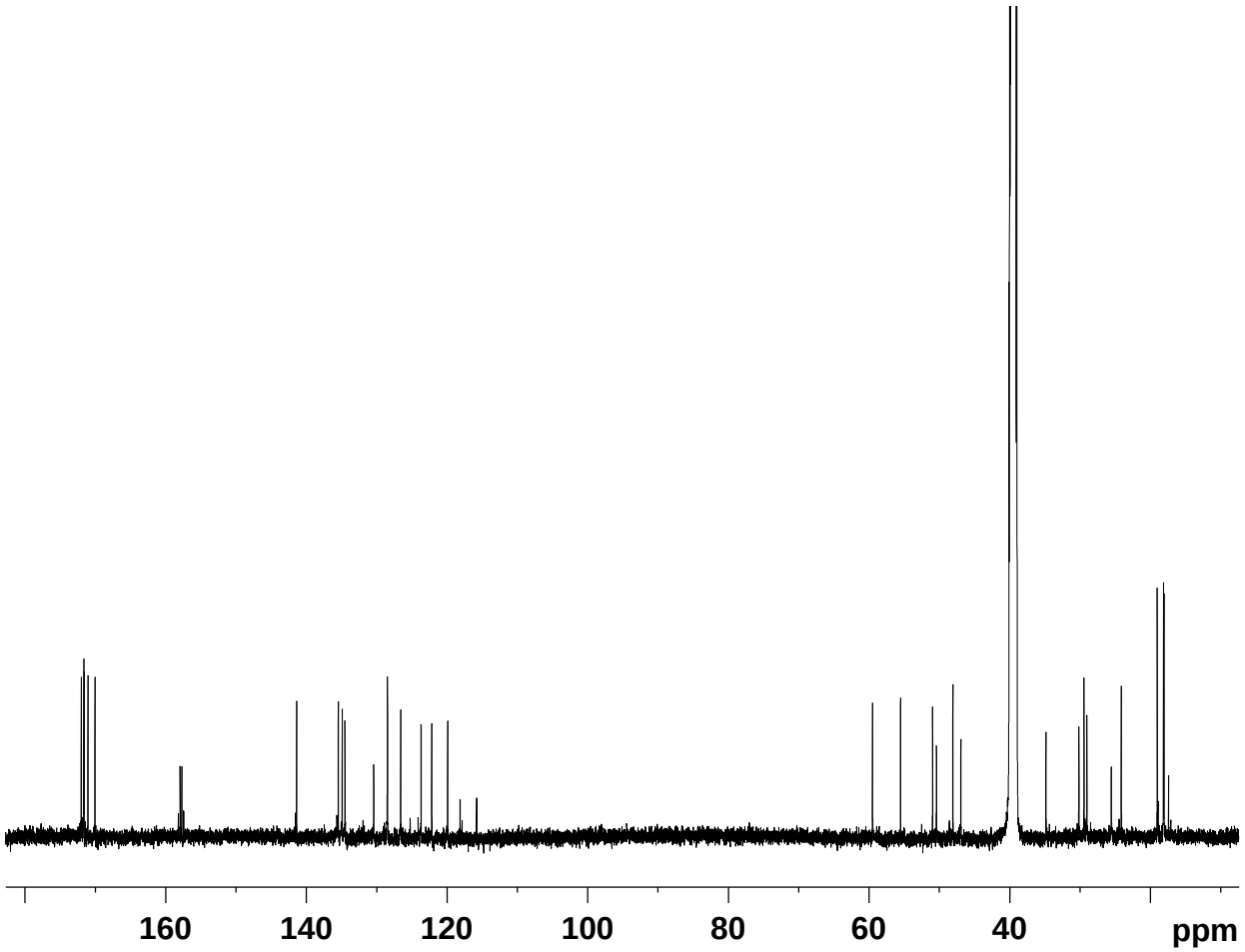

```
Current Data Parameters
NAME       KL-5-12_AV500
EXPNO                  3
PROCNO                 1

F1 - Acquisition parameters
TD                   256
SFO1          125.7704 MHz
FIDRES         98.257607 Hz
SW               199.999 ppm
FnMODE                QF

F2 - Processing parameters
SI                  2048
SF          500.1300135 MHz
WDW                QSINE
SSB                    2
LB         0 Hz
GB         0
PC                  1.00

F1 - Processing parameters
SI                  2048
MC2                   QF
SF          125.7578472 MHz
WDW                QSINE
SSB                    2
LB         0 Hz
GB         0
```

Cyclic-Ala-Val-Pro-His-OH (23):

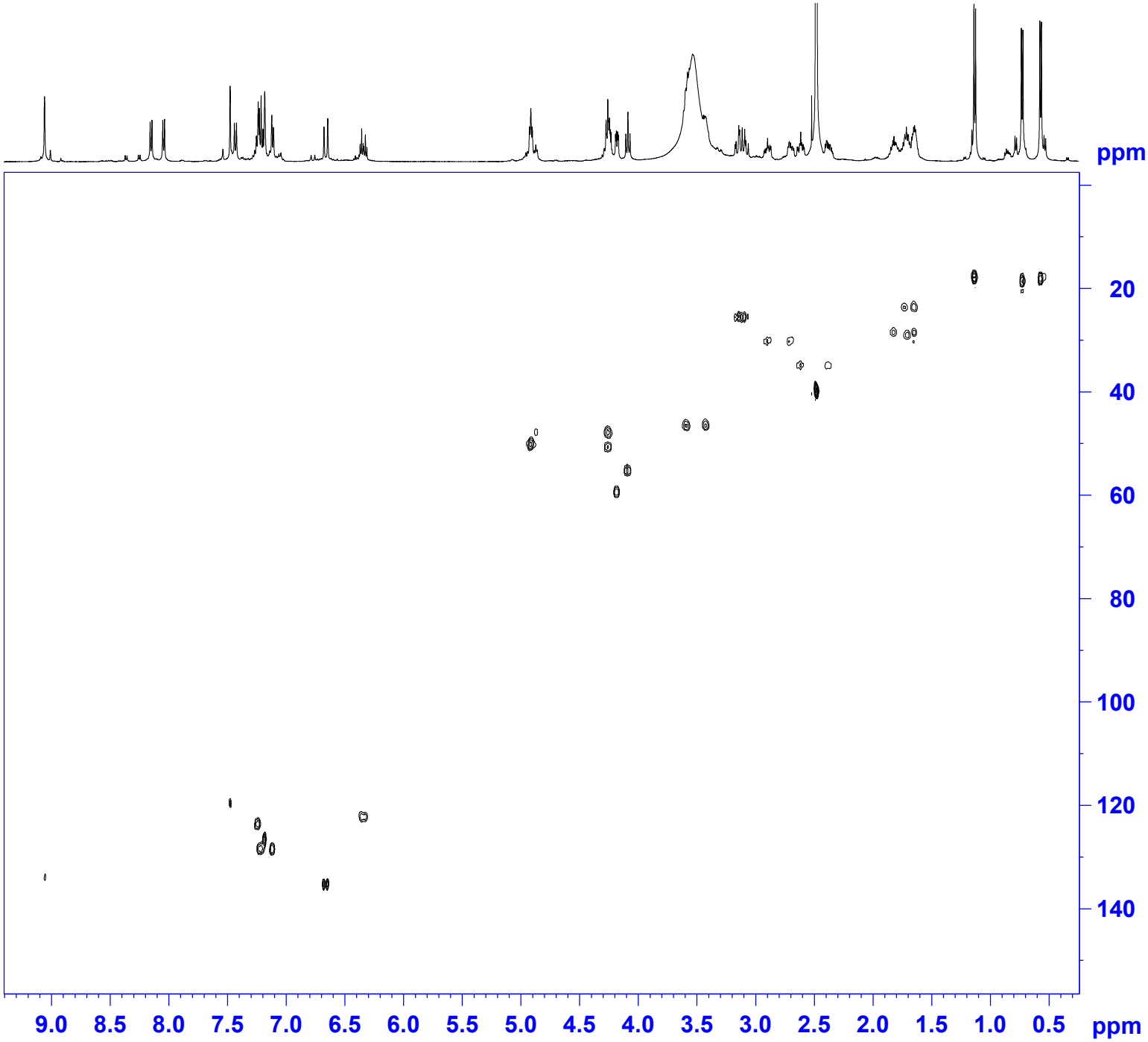
23

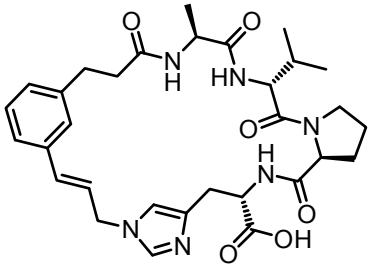



```
Current Data Parameters
NAME      KL-4-183_F14_ICON
EXPNO                    1
PROCNO                   1

F2 - Acquisition Parameters
Date_           20120827
Time               20.16
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                    11
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300000 MHz
WDW                   EM
SSB       0
LB                0.30 Hz
GB        0
PC                1.00
```

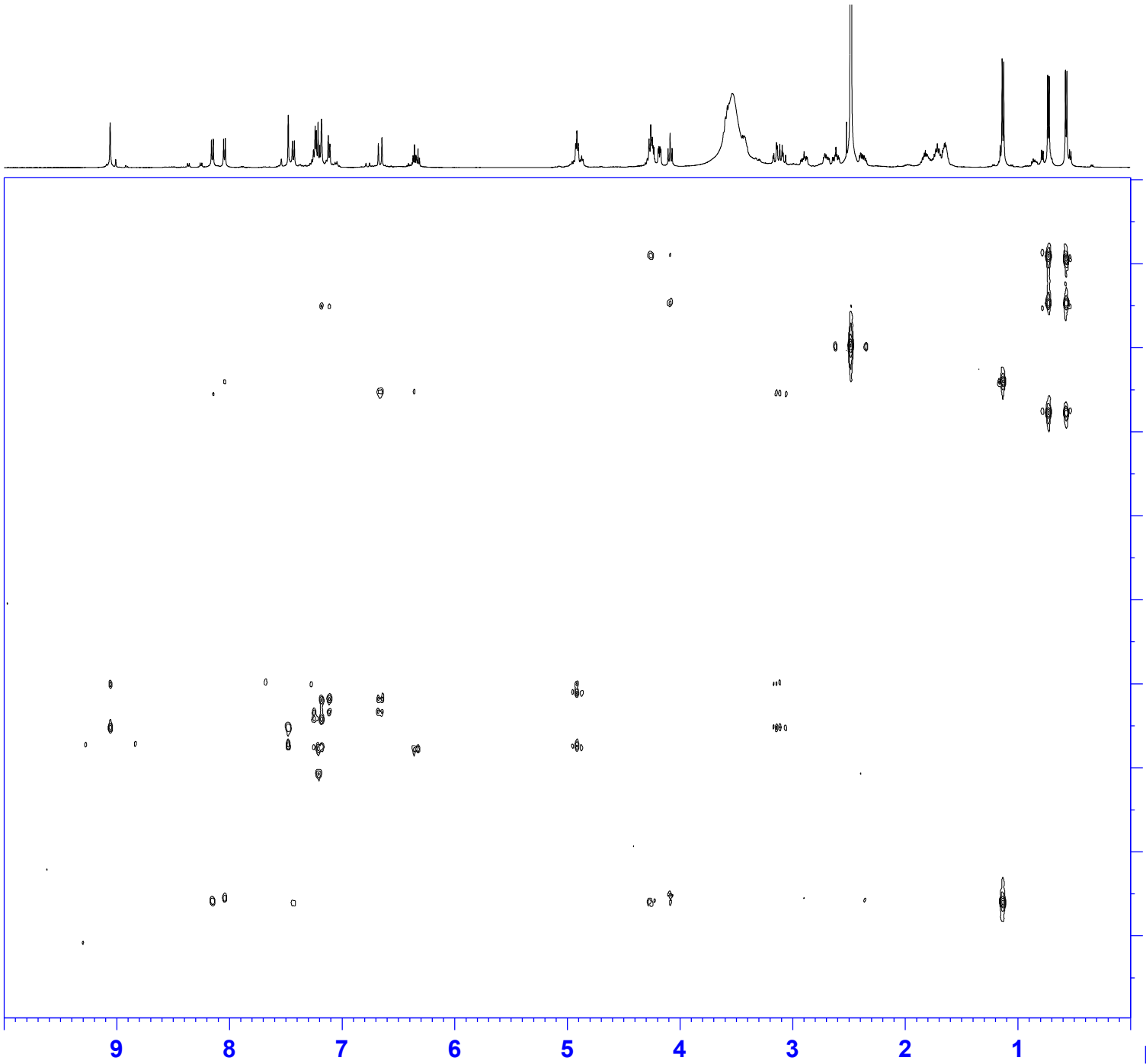


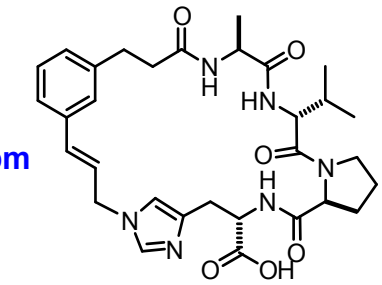

```
Current Data Parameters
NAME      KL-4-183_F14_ICON
EXPNO                    2
PROCNO                   1

F2 - Processing parameters
SI                131072
SF          125.7578519 MHz
WDW                   EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40
```






```
Current Data Parameters
NAME        KL-4-183_F14
EXPNO                  5
PROCNO                 1

F1 - Acquisition parameters
TD                   256
SFO1          125.7678 MHz
FIDRES         98.255890 Hz
SW               200.000 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                  2048
SF          500.1300135 MHz
WDW                QSINE
SSB                    2
LB        0 Hz
GB        0
PC                  1.00

F1 - Processing parameters
SI                  2048
MC2        echo-antiecho
SF          125.7578472 MHz
WDW                TRAP
SSB                    2
LB        0 Hz
GB        0
```

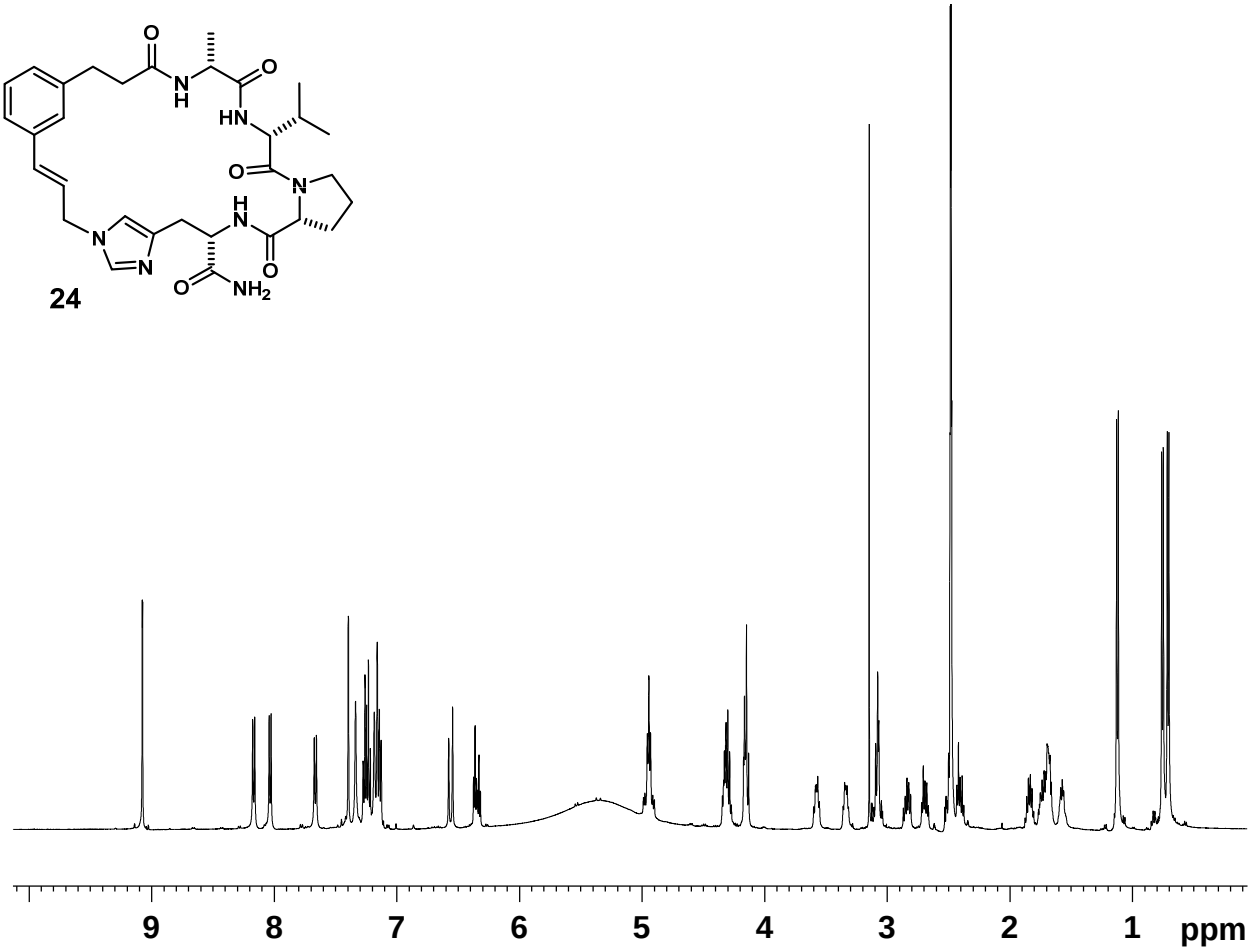




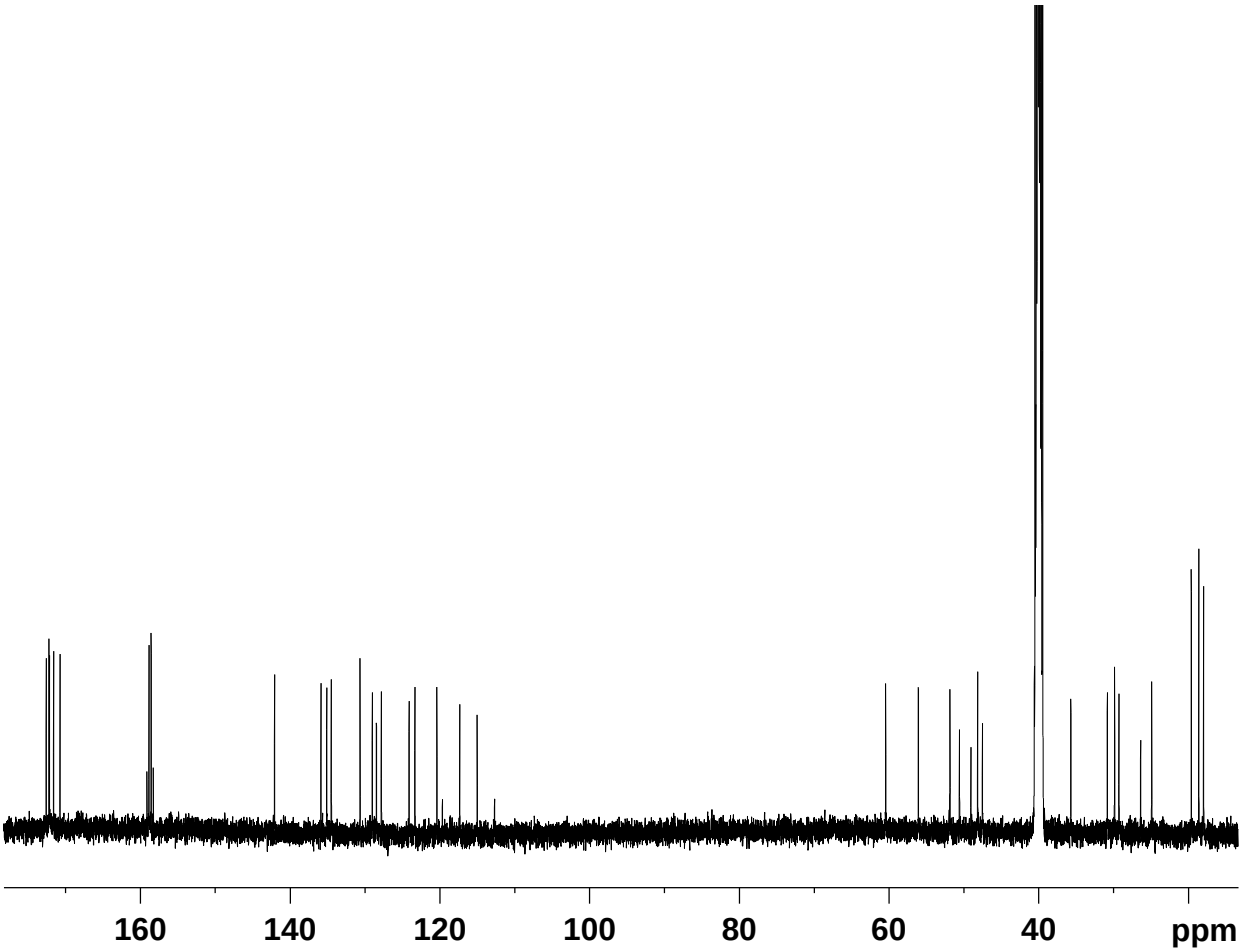

```
Current Data Parameters
NAME        KL-4-183_F14
EXPNO                  3
PROCNO                 1

F2 - Acquisition Parameter
Date_           20120731
Time              12.18
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG    hmbcgpl2ndqf
TD                 2048
SOLVENT            DMSO
NS                    2
DS                   16
SWH            6009.615 H
FIDRES         2.934382 H
AQ            0.1703936 s
RG                44.31
DW               83.200 u
DE                10.00 u
TE                296.0 K
CNST6        120.0000000
CNST7        160.0000000
CNST13         7.0000000
d0           0.00000300 s
D1           2.00000000 s
d6           0.07142857 s
D16          0.00020000 s
DELTA1       0.00296667 s
DELTA2       0.00192500 s
DELTA3       0.07022458 s
in0       0 sec
ST1CNT              256
d0orig       0.00000300 s
ph1loop               0
t1loop                0
SFO1         500.1330008 M
NUC1                1H
P1                10.00 u
p2                20.00 u
PLW1         13.50000000 W
SFO2         125.7703648 M
NUC2                13C
P3                 9.63 u
PLW2         23.01399994 W
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
GPNAM[3]      SMSQ10.100
GPNAM[4]      SMSQ10.100
GPNAM[5]      SMSQ10.100
```

Cyclic-Ala-Val-Pro-His-NH_2 (24):

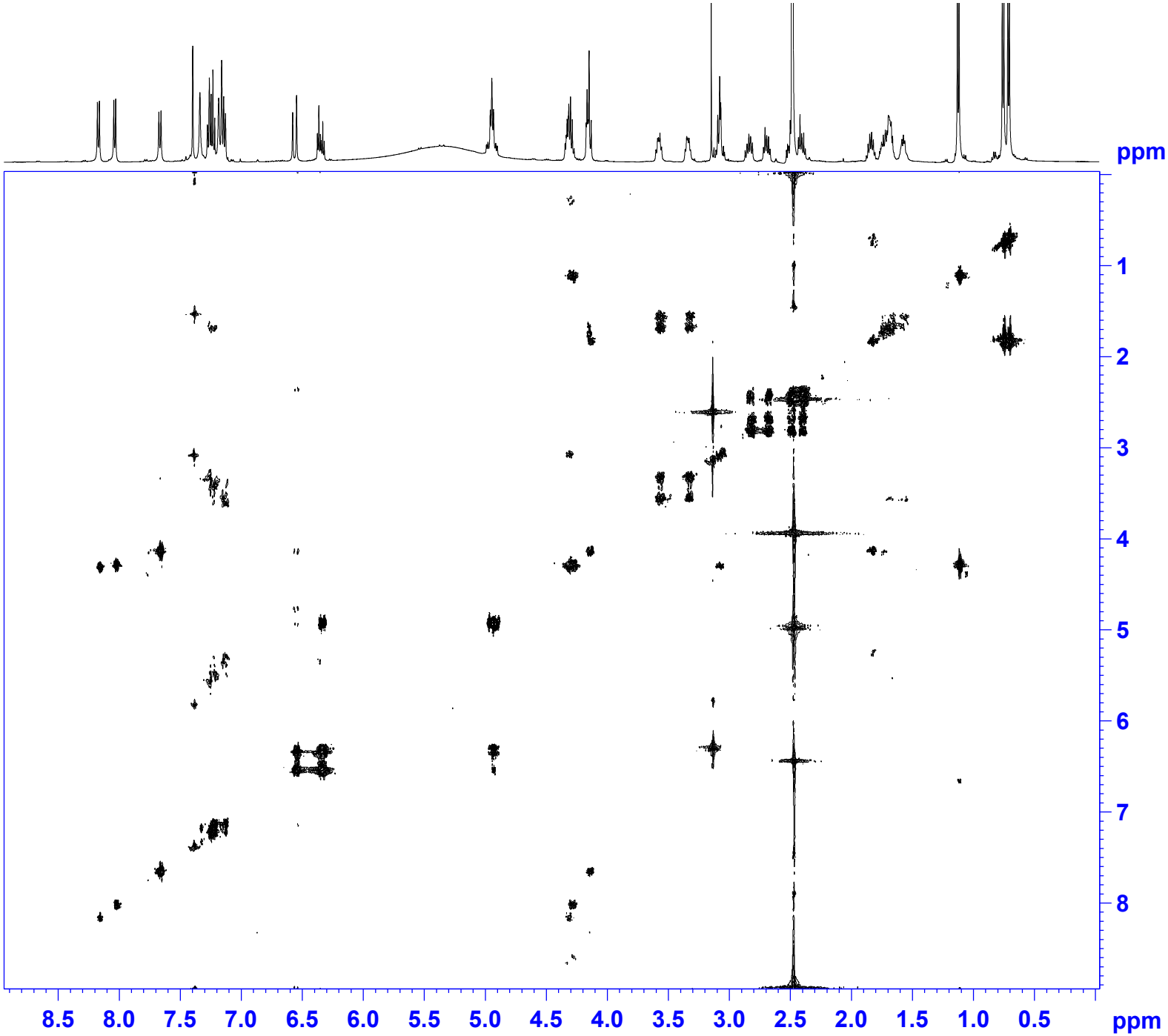
24

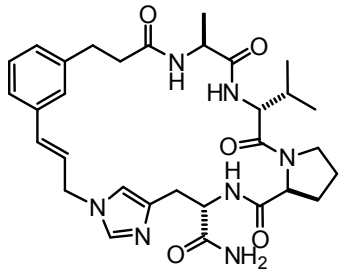



```
Current Data Parameters
NAME      KL-4-206A_F22
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20120731
Time              12.41
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG               202.91
DW               50.000 usec
DE               10.00 usec
TE               296.0 K
D1            2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB       0
LB                0.30 Hz
GB        0
PC                1.00
```

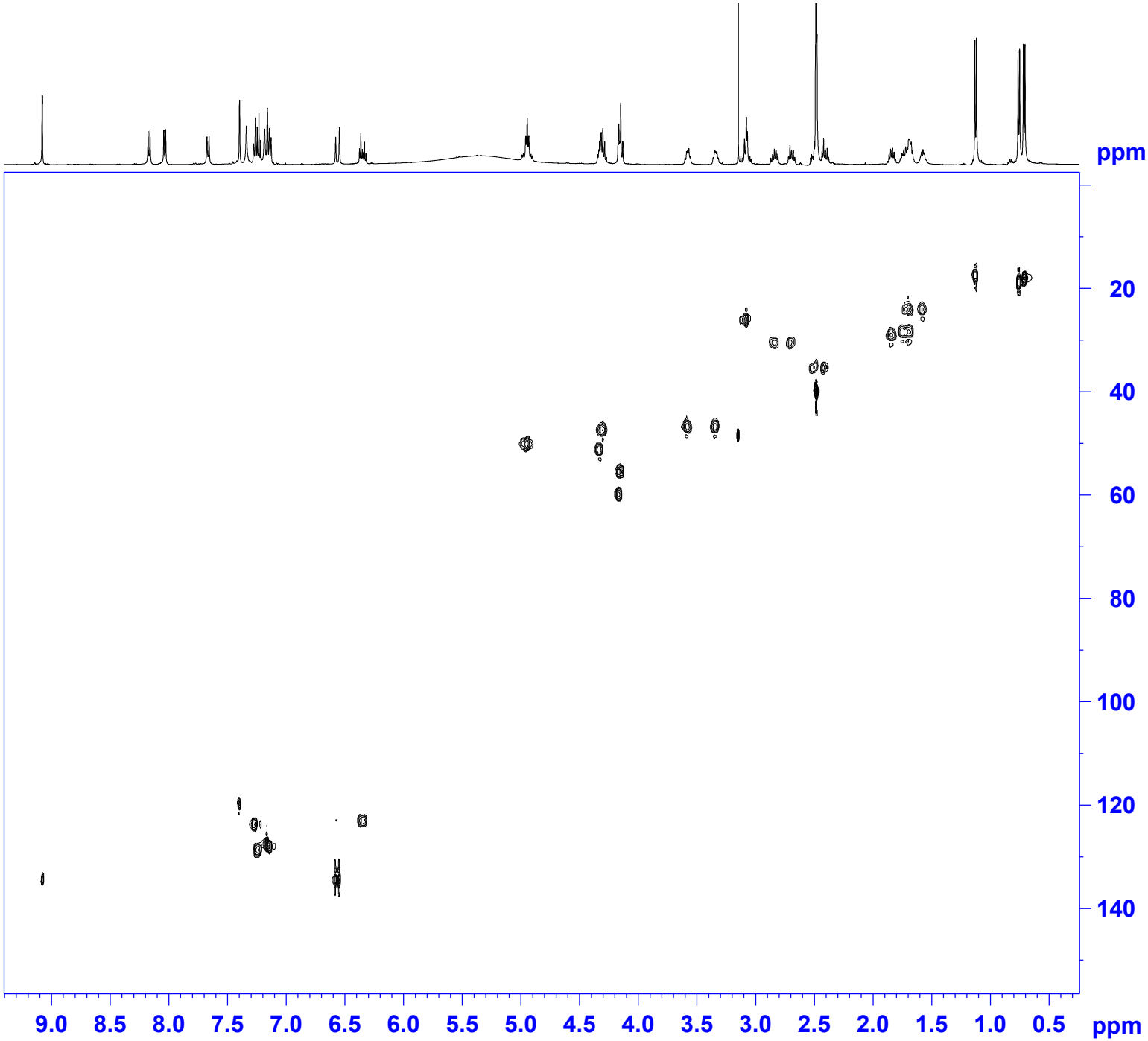


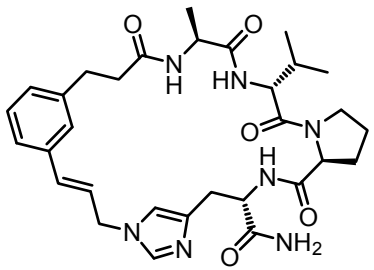

```
Current Data Parameters
NAME      KL-4-206A_F22
EXPNO                 5
PROCNO                1

F2 - Acquisition Parameters
Date_           20120821
Time              19.30
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  128
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG               202.91
DW               16.000 usec
DE               18.00 usec
TE               298.0 K
D1            2.00000000 sec
d11           0.03000000 sec
DELTA         1.89999998 sec
TD0                   1
SFO1        125.7722511 MHz
NUC1                 13C
P1                9.63 usec
PLW1        23.00000000 W
SFO2        500.1330008 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2            80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                  EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40
```



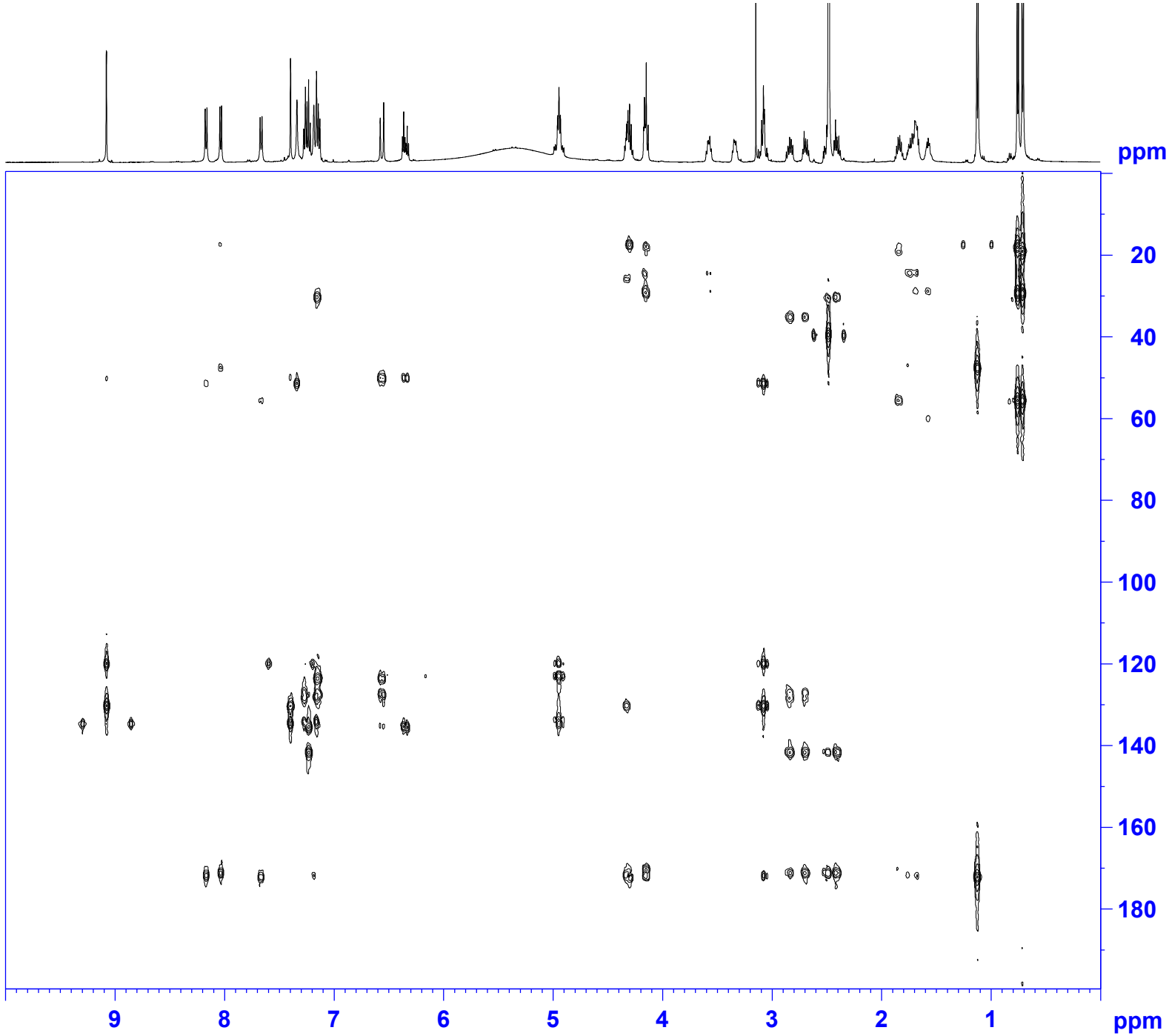


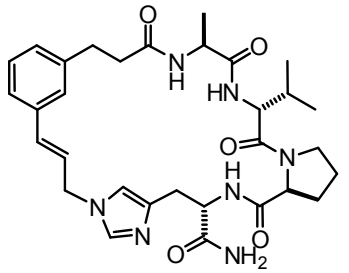

```
Current Data Parameters
NAME       KL-4-206A_F22
EXPNO                  3
PROCNO                 1

F1 - Acquisition parameters
TD                   256
SFO1          600.1327 MHz
FIDRES       21.046595 Hz
SW               8.978 ppm
FnMODE       States-TPPI

F2 - Processing parameters
SI                  2048
SF          600.1300273 MHz
WDW                QSINE
SSB                    2
LB         0 Hz
GB         0
PC                 1.00

F1 - Processing parameters
SI                  2048
MC2          States-TPPI
SF          600.1300273 MHz
WDW                QSINE
SSB                    2
LB         0 Hz
GB         0
```






```
Current Data Parameters
NAME      KL-4-206A_F22
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20120731
Time              12.41
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                65536
SOLVENT             DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES            0.152588 Hz
AQ             3.2767999 sec
RG                202.91
DW                50.000 usec
DE                10.00 usec
TE                296.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB       0
LB                0.30 Hz
GB        0
PC                1.00
```





Current Data Parameters
NAME KL-4-206A_F22
EXPNO 2
PROCNO 1

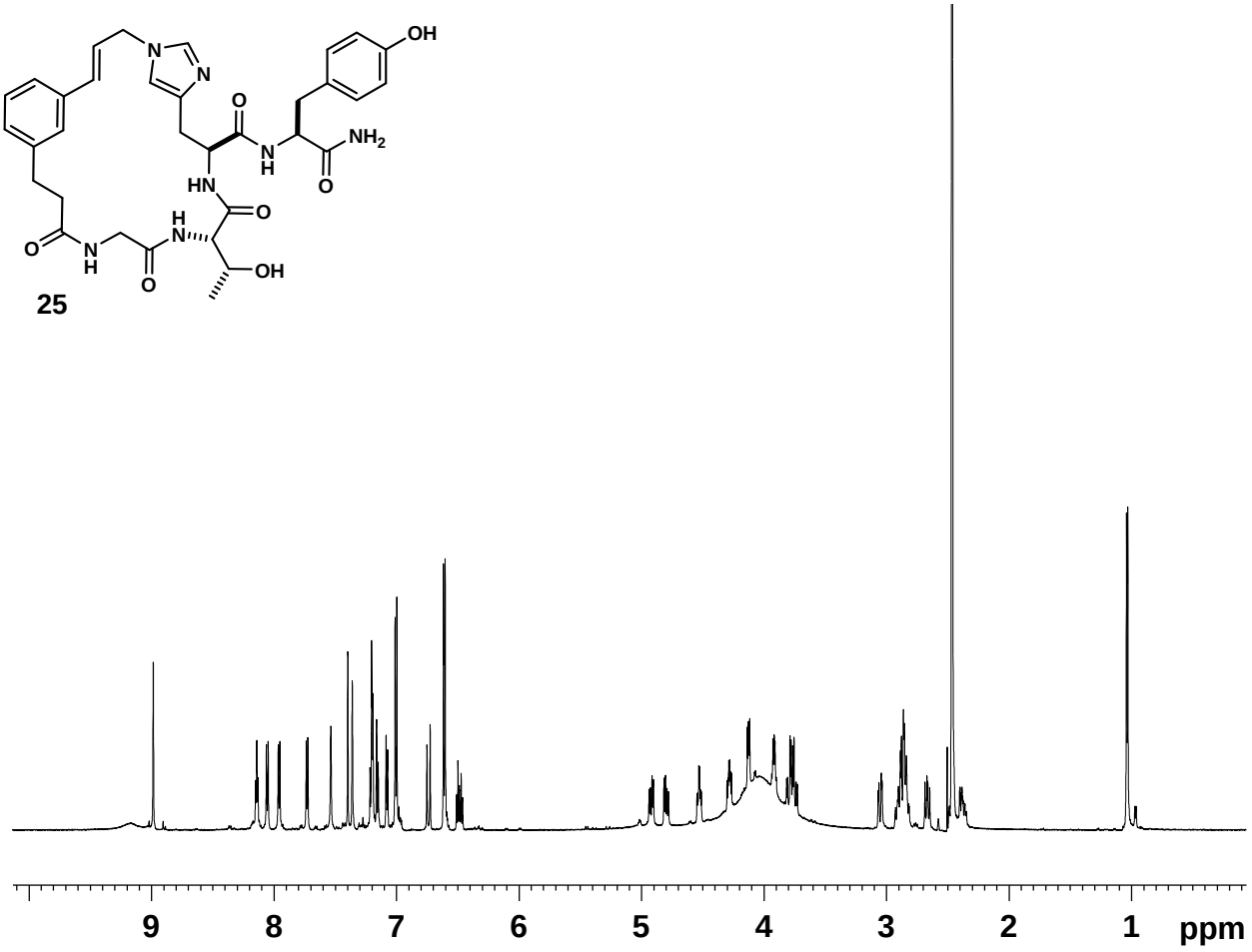
F1 - Acquisition parameters
TD 220
SFO1 125.7704 MHz
FIDRES 114.336121 Hz
SW 199.999 ppm
FnMODE QF

F2 - Processing parameters
SI 2048
SF 500.1300135 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0
PC 1.00

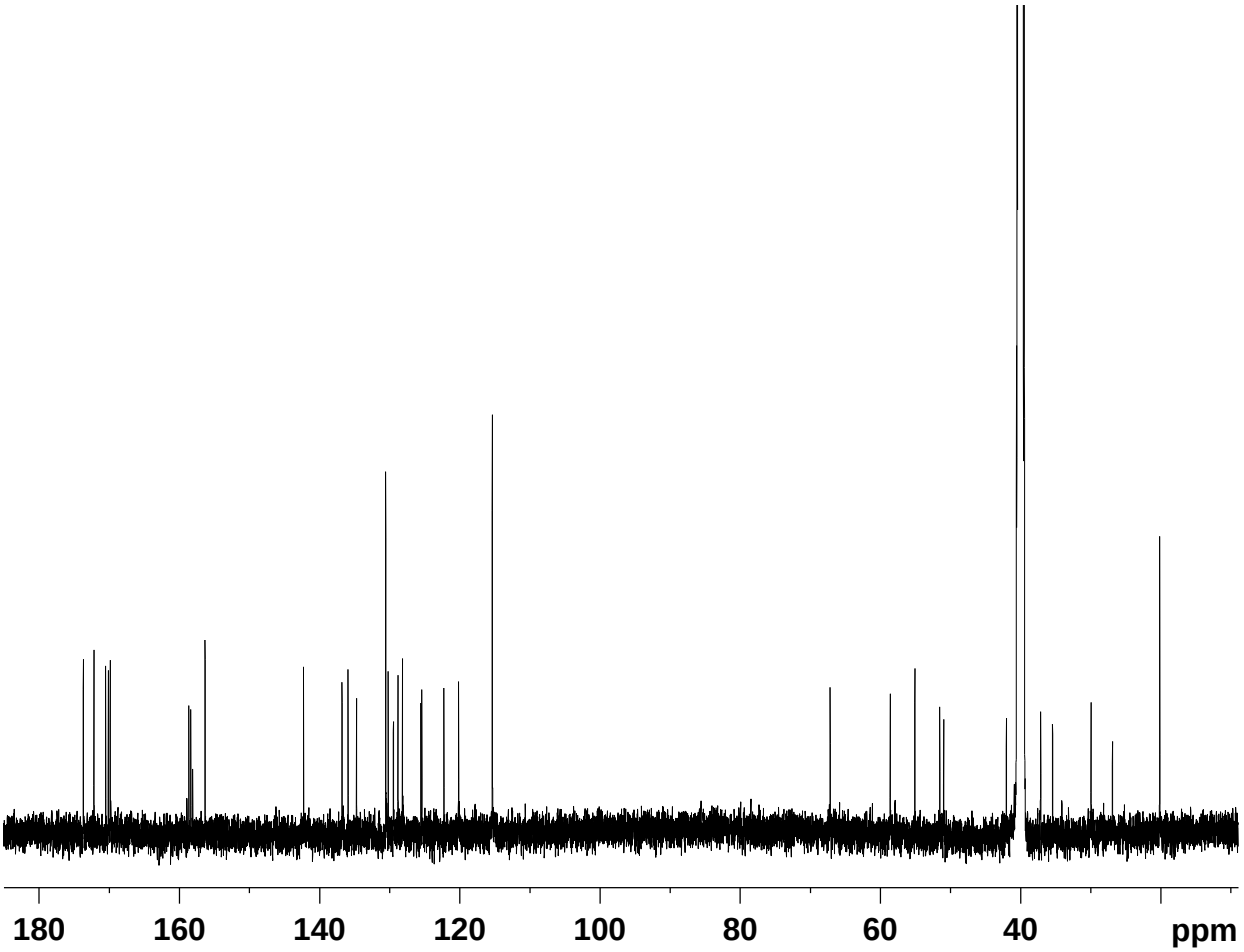
F1 - Processing parameters
SI 2048
MC2 QF
SF 125.7578472 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0

Cyclic-Gly-Thr-His-Tyr-NH$_2$ (25):

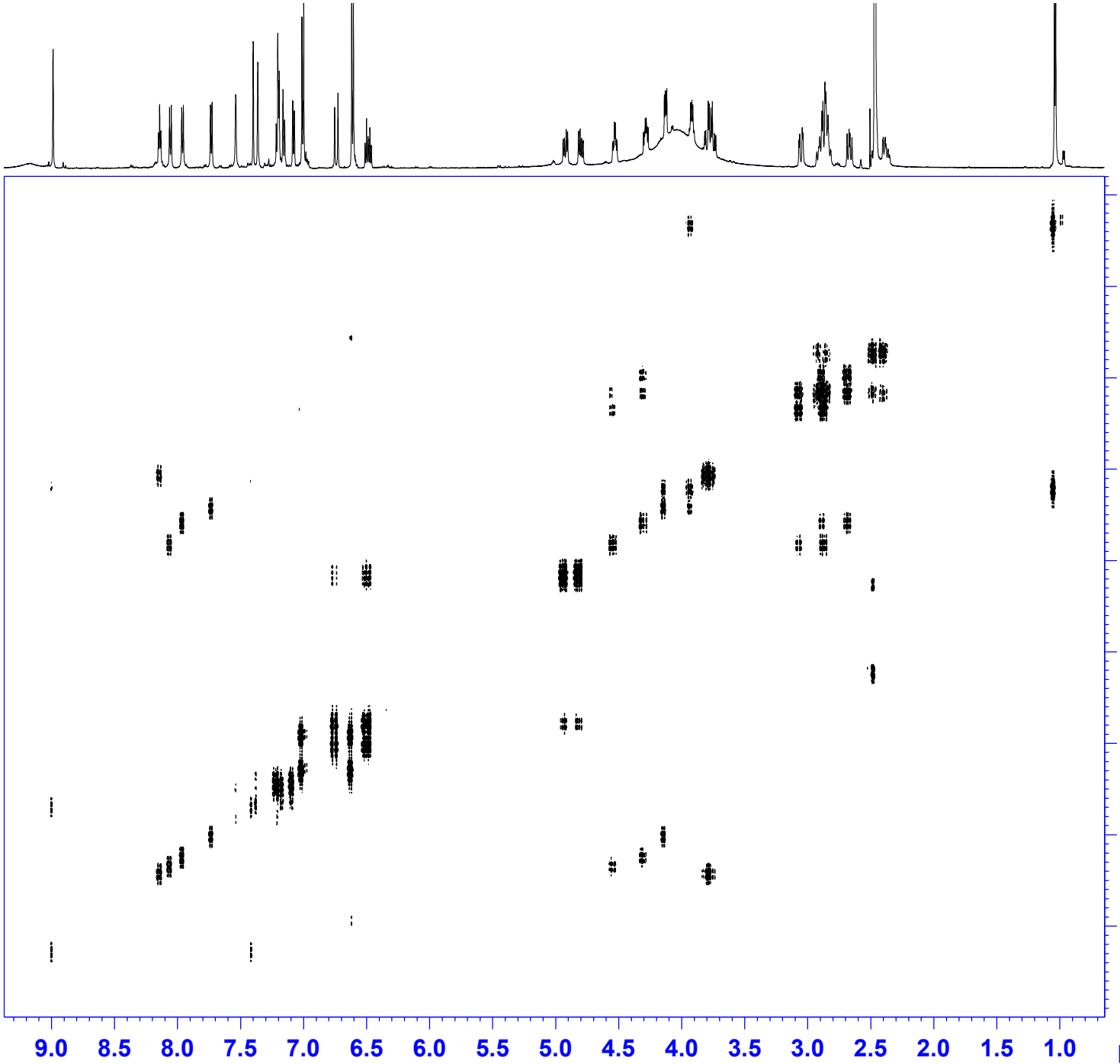
25

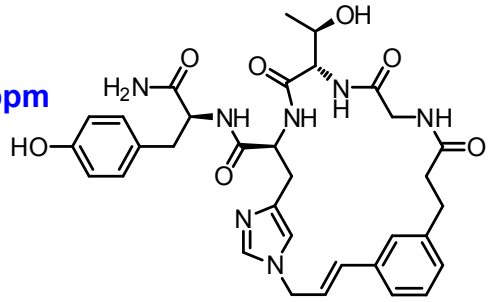



```
Current Data Parameters
NAME         His_A2_F17
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20121207
Time               17.19
INSTRUM            av600
PROBHD   5 mm TBI5
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                   16
DS                    0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                  256
DW               40.400 usec
DE                6.50 usec
TE               294.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                 9.10 usec
PL1               -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

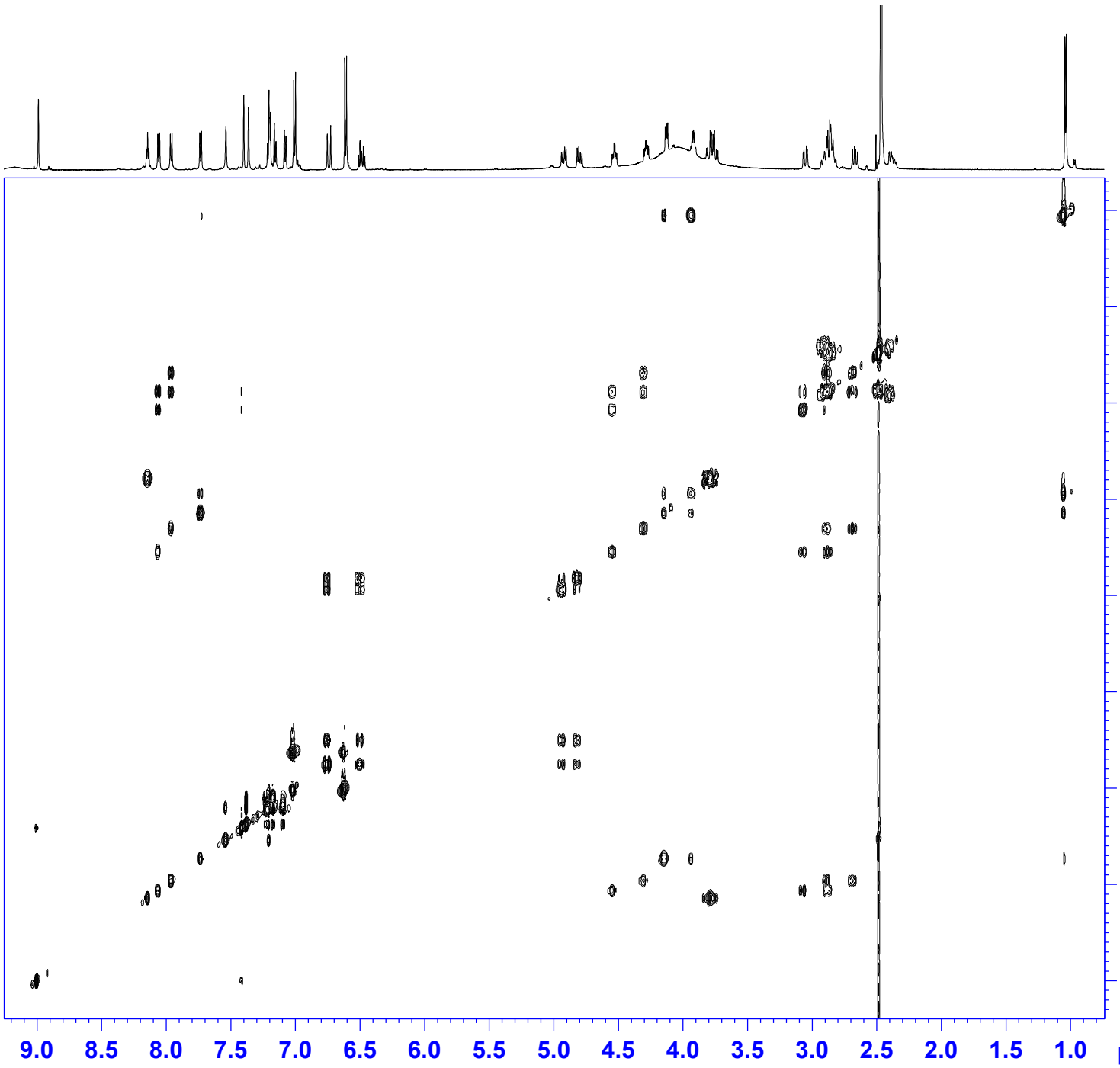


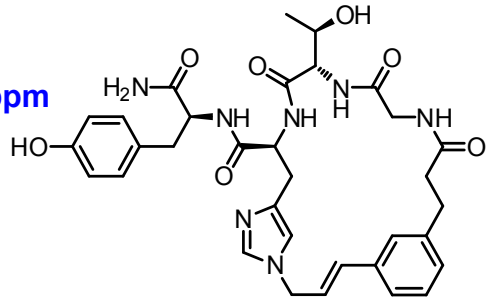

```
Current Data Parameters
NAME         His_A2_F17
EXPNO                 6
PROCNO                1

F2 - Acquisition Parameters
Date_           20121220
Time               17.18
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  256
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE                18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                 1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```



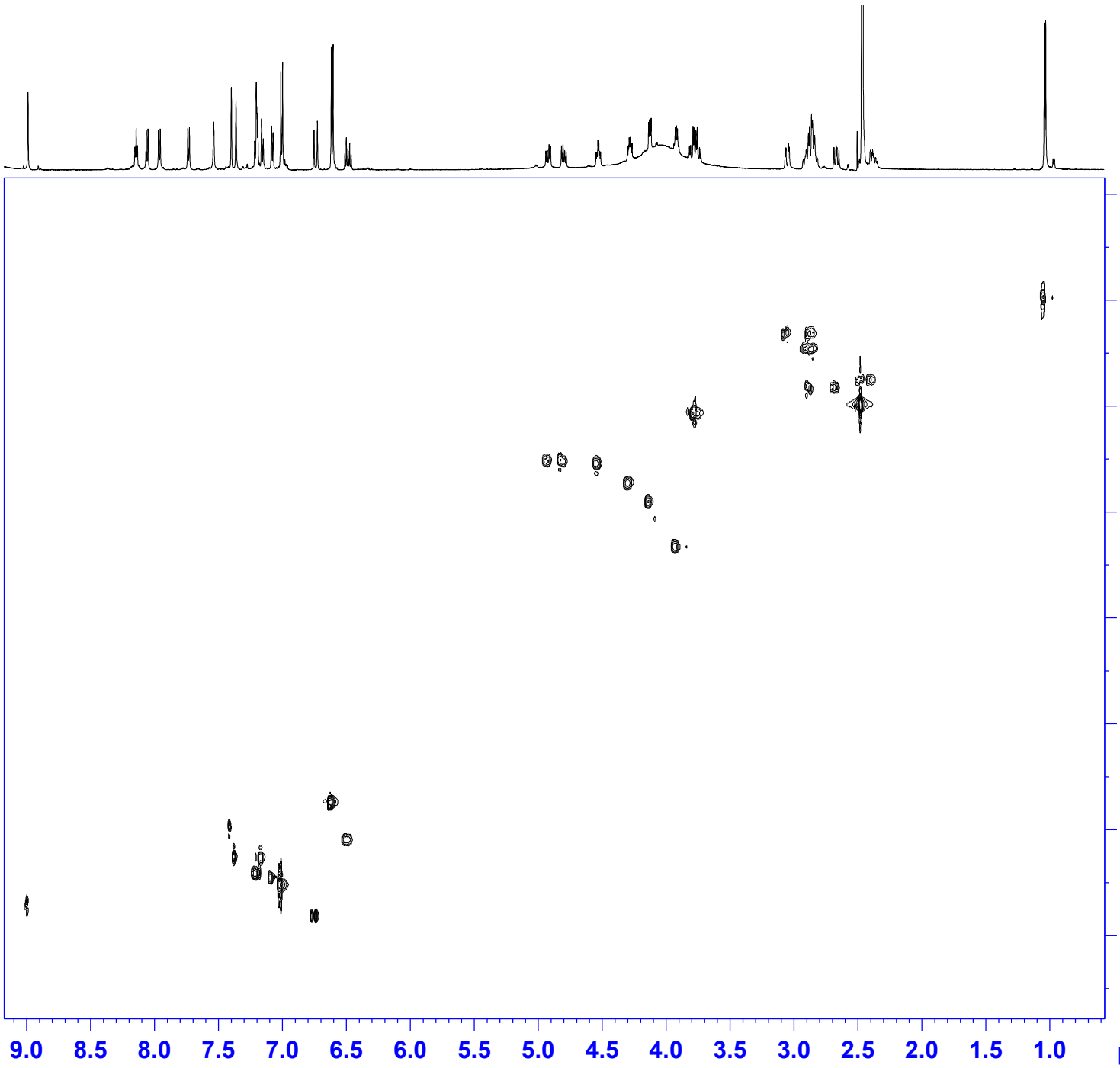


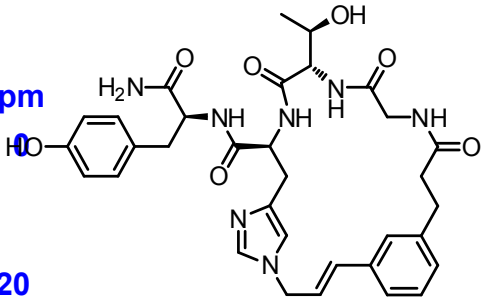

```
Current Data Parameters
NAME          His_A2_F17
EXPNO                  8
PROCNO                 1

F2 - Acquisition Paramete
Date_           20121220
Time              17.48
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      cosygpmfph
TD                4096
SOLVENT            DMSO
NS                    2
DS                    8
SWH            5498.534 H
FIDRES         1.342415 H
AQ             0.3724629 s
RG                202.91
DW                90.933 u
DE                10.00 u
TE                298.0 K
D0            0.00007817 s
D1            2.00000000 s
D13           0.00000400 s
D16           0.00020000 s
IN0           0.00018180 s

======== CHANNEL f1 =====
SFO1        500.1327507 M
NUC1                1H
P1                10.00 u
P2                20.00 u
PLW1        13.50000000 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
GPZ1              10.00 %
GPZ2              20.00 %
P16             1000.00 u

F1 - Acquisition paramete
TD                  256
SFO1          500.1328 M
FIDRES       21.486525 H
SW              10.998 p
```



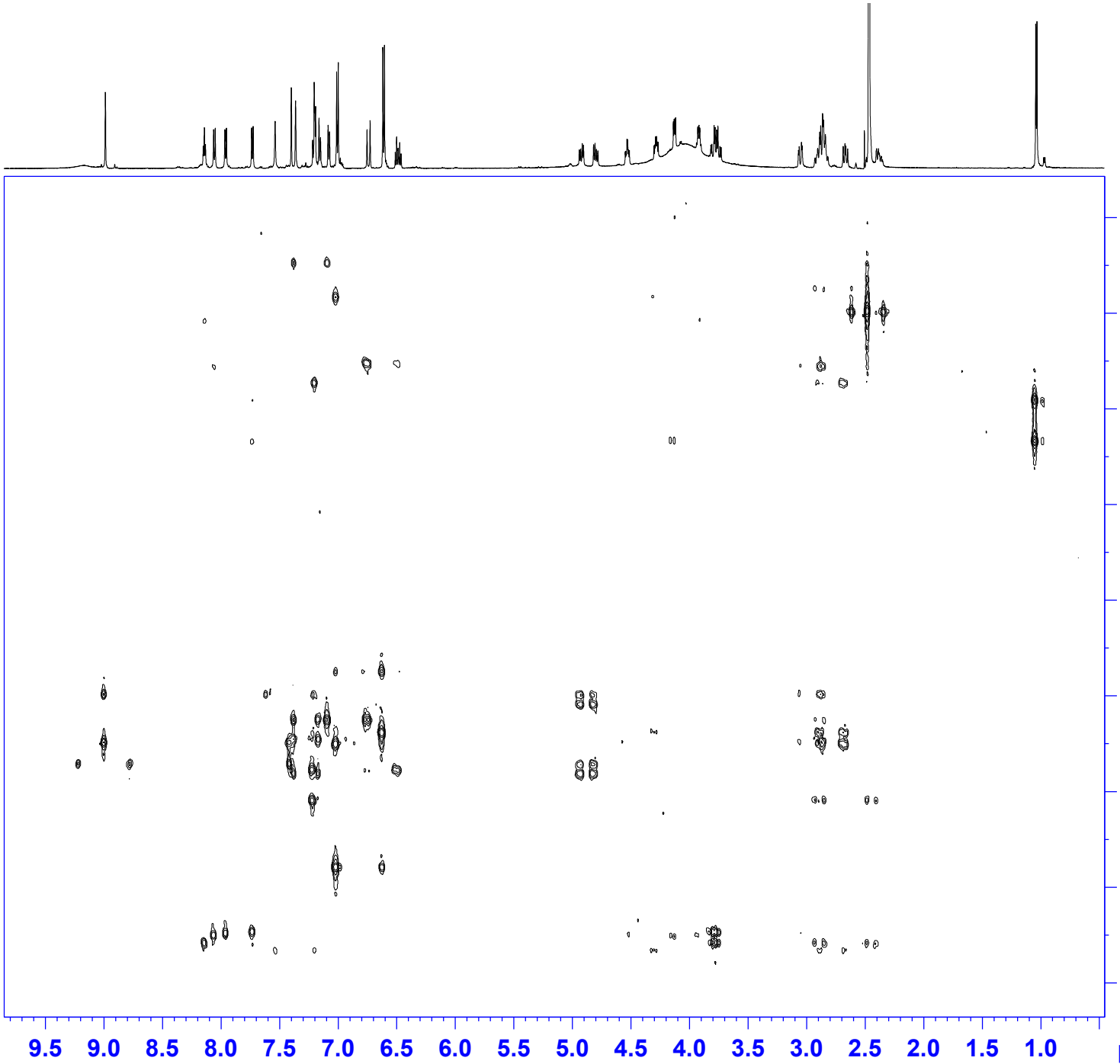


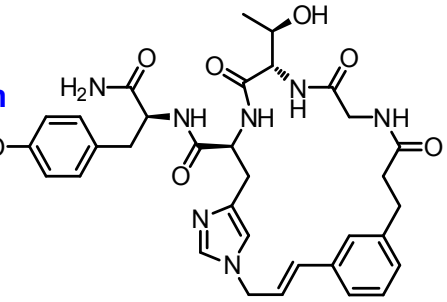

```
Current Data Parameters
NAME          His_A2_F17
EXPNO                  4
PROCNO                 1

F2 - Acquisition Paramete
Date_           20121208
Time               12.00
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG     mlevetgp.js
TD                 2048
SOLVENT            DMSO
NS                    2
DS                    8
SWH            5000.000 H
FIDRES         2.441406 H
AQ             0.2048000 s
RG                37.94
DW               100.000 u
DE                10.00 u
TE                298.0 K
D0             0.00000300 s
D1             2.00000000 s
D9             0.06000000 s
D11            0.03000000 s
D12            0.00002000 s
D16            0.00020000 s
IN0            0.00020000 s
L1                    24

======== CHANNEL f1 =====
SFO1         500.1325007 M
NUC1                1H
P1                10.00 u
P2                20.00 u
P5                26.68 u
P6                40.00 u
P7                80.00 u
P17             2500.00 u
PLW1         13.50000000 W
PLW10         0.84375000 W

====== GRADIENT CHANNEL =
GPNAM[1]        SINE.100
GPNAM[2]        SINE.100
GPZ1               30.00 %
```





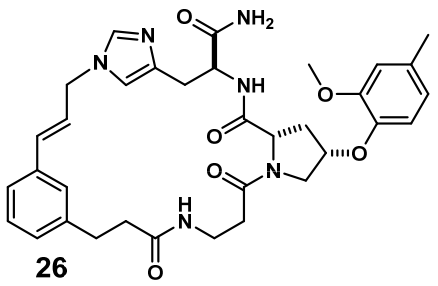

```
Current Data Parameters
NAME          His_A2_F17
EXPNO                  7
PROCNO                 1

F2 - Acquisition Paramete:
Date_           20121220
Time              17.19
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      hsqcedetgp
TD                2048
SOLVENT           DMSO
NS                   4
DS                  16
SWH           5000.000 H:
FIDRES        2.441406 H:
AQ            0.2048000 s
RG              202.91
DW              100.000 u:
DE                10.00 u:
TE                298.0 K
CNST2       145.0000000
D0           0.00000300 s
D1           1.50000000 s
D4           0.00172414 s
D11          0.03000000 s
D13          0.00000400 s
D16          0.00020000 s
D21          0.00345000 s
IN0          0.00001990 s
ZGOPTNS

======== CHANNEL f1 =====:
SFO1        500.1325007 M
NUC1                1H
P1                10.00 u:
P2                20.00 u:
P28      0 usec
PLW1        13.50000000 W

======== CHANNEL f2 =====:
SFO2        125.7678496 M
NUC2                13C
CPDPRG[2           garp
P3                 9.63 u:
P4                19.26 u:
```



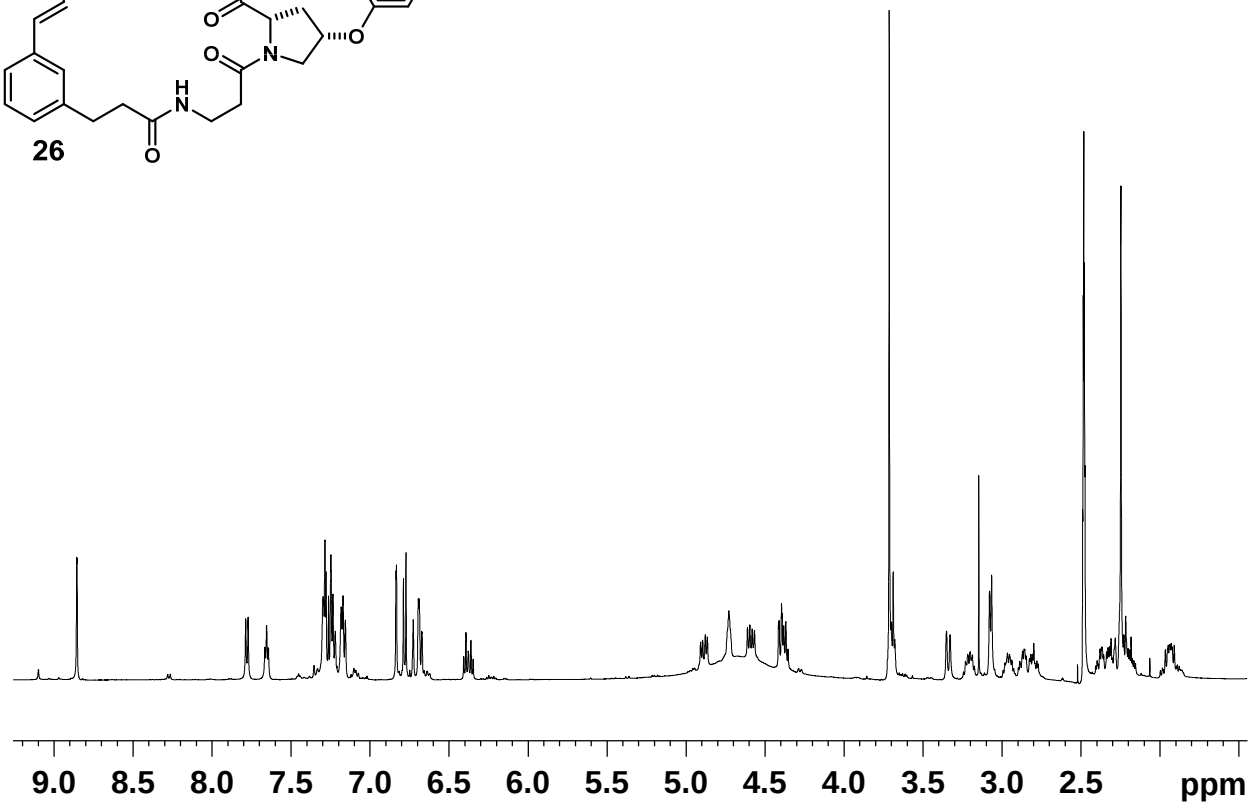



```
Current Data Parameters
NAME          His_A2_F17
EXPNO                  5
PROCNO                 1

F2 - Acquisition Paramete
Date_           20121208
Time               12.20
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG    hmbcgpl2ndqf
TD                 2048
SOLVENT            DMSO
NS                    2
DS                   16
SWH            6009.615 H
FIDRES         2.934382 H
AQ             0.1703936 s
RG                202.91
DW                83.200 u
DE                10.00 u
TE                298.0 K
CNST6        120.0000000
CNST7        160.0000000
CNST13         7.0000000
D0           0.00000300 s
D1           1.50000000 s
D6           0.07142857 s
D16          0.00020000 s
IN0          0.00001990 s

======== CHANNEL f1 =====
SFO1         500.1330008 M
NUC1                1H
P1                10.00 u
P2                20.00 u
PLW1         13.50000000 W

======== CHANNEL f2 =====
SFO2         125.7703648 M
NUC2               13C
P3                9.63 u
PLW2         23.01399994 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
```

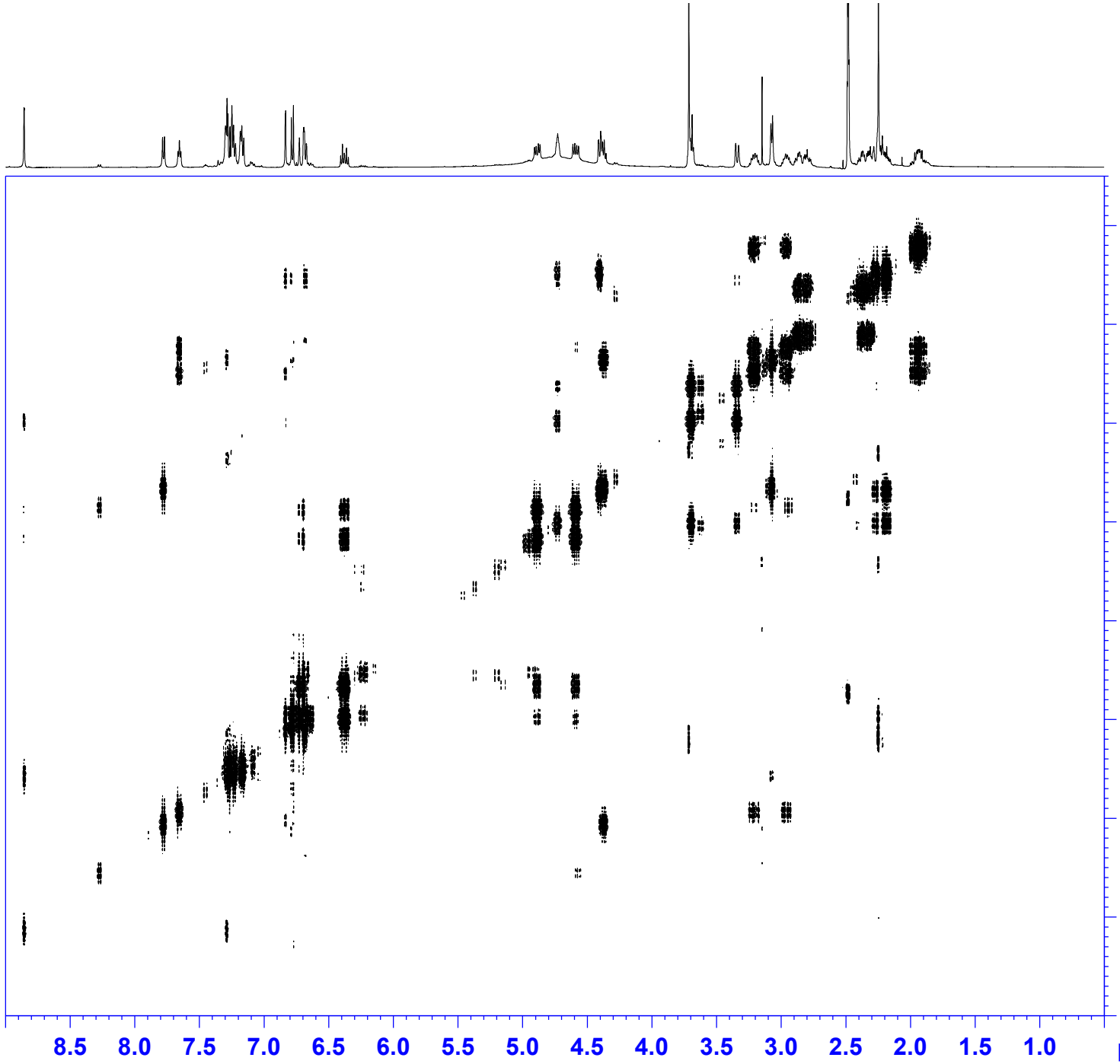
Cyclic-β-Ala-Pro[4-(2-methoxy-4-methylphenoxy)]-His (26):

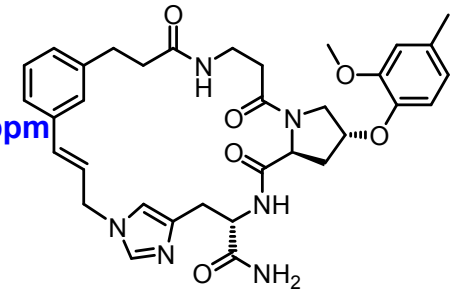


26

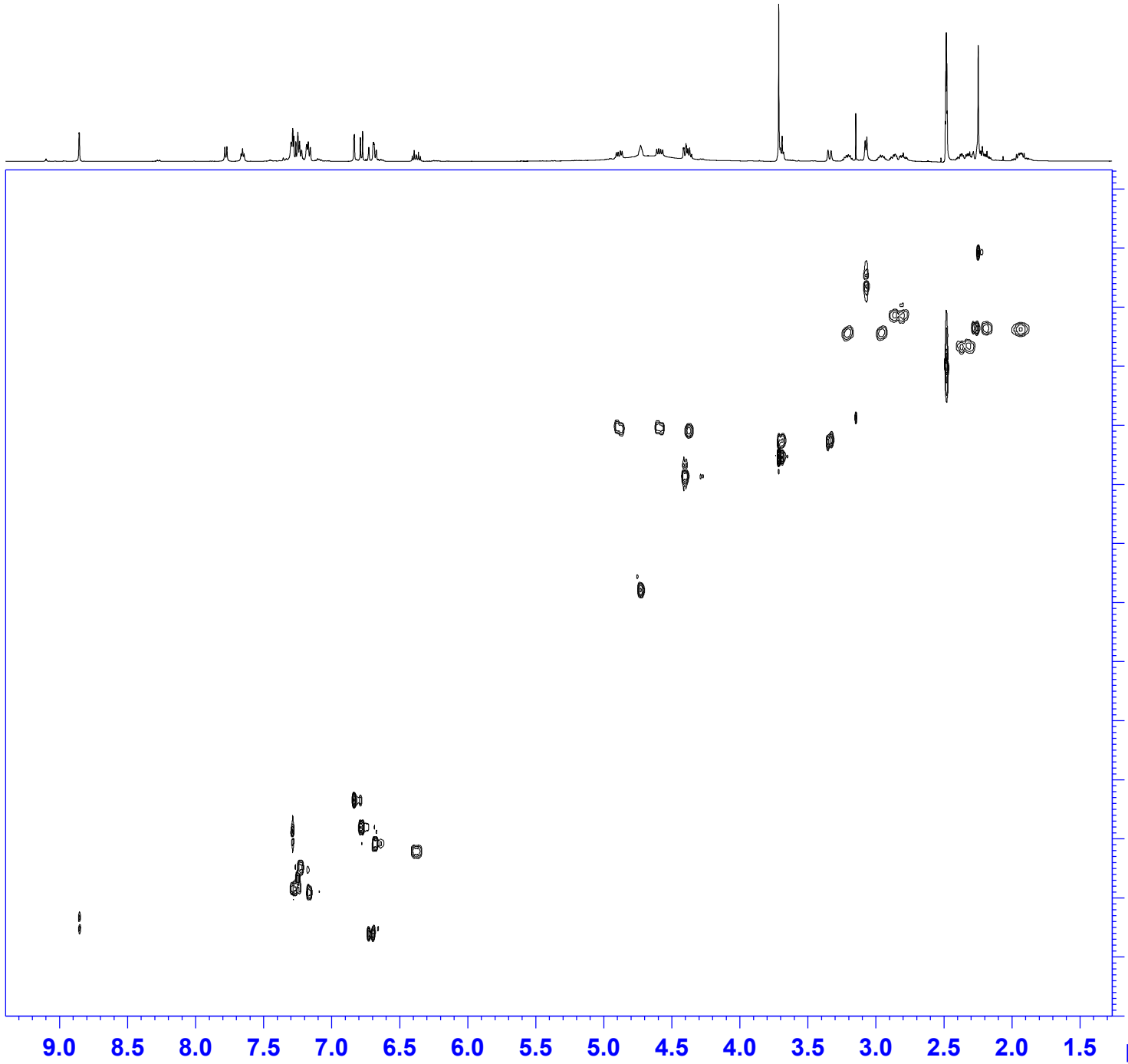


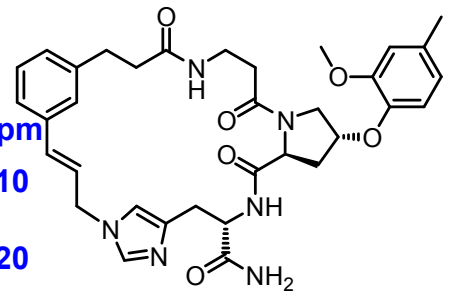

```
Current Data Parameters
NAME       KL-4-221B_F7
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20120731
Time              19.30
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES            0.152588 Hz
AQ            3.2767999 sec
RG                180.61
DW                50.000 usec
DE                10.00 usec
TE                296.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



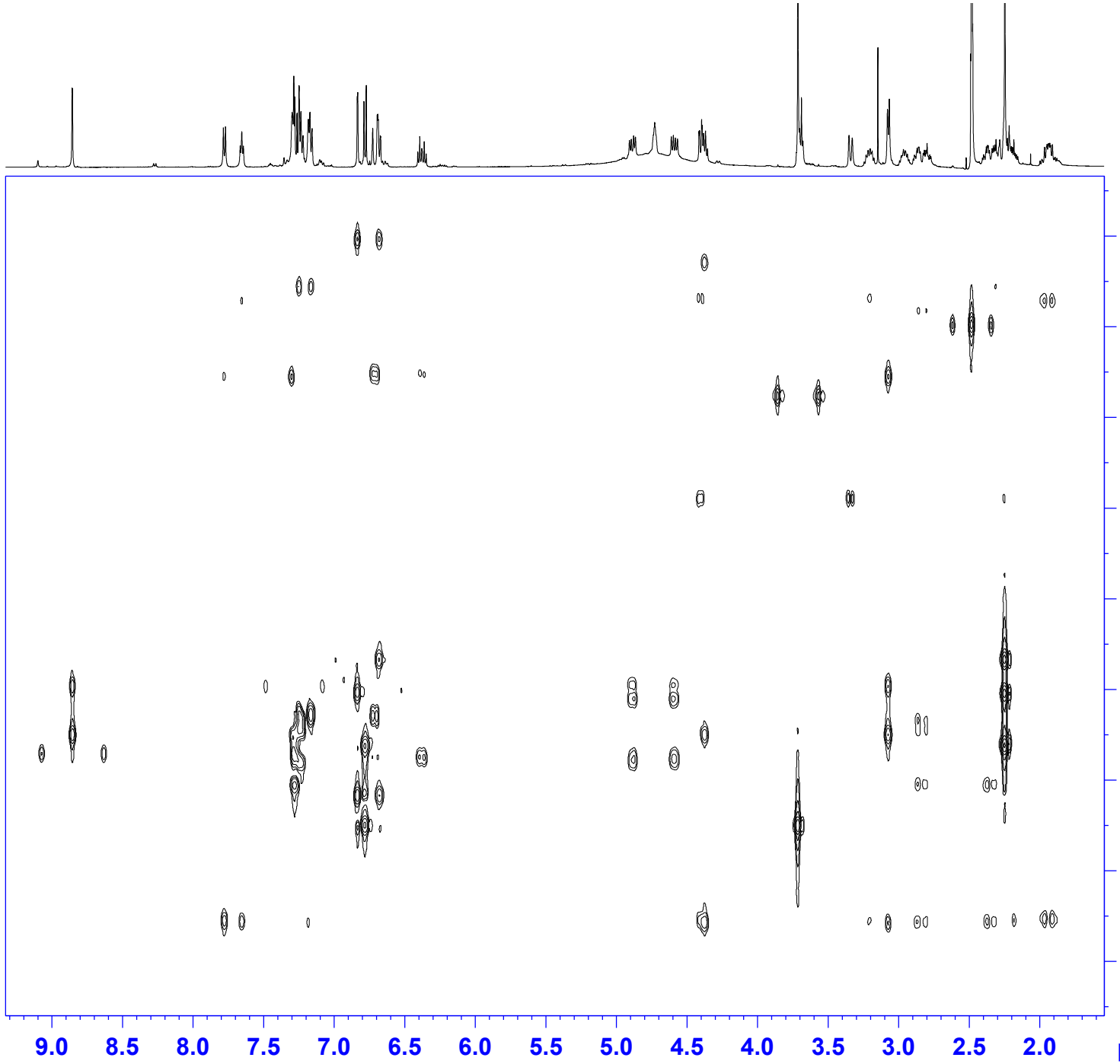


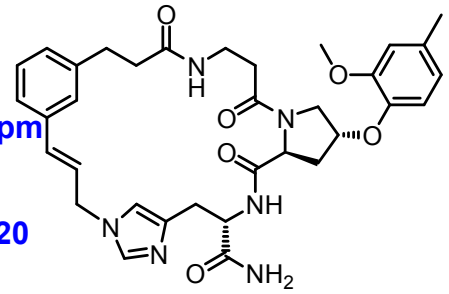

```
Current Data Parameters
NAME        KL-4-221B_F7
EXPNO                  4
PROCNO                 1

F2 - Acquisition Paramete:
Date_           20120731
Time              19.33
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      cosygpmfph
TD                4096
SOLVENT           DMSO
NS                   2
DS                   8
SWH            5498.534 H:
FIDRES         1.342415 H:
AQ             0.3724629 s
RG                44.31
DW                90.933 u:
DE                10.00 u:
TE                296.0 K
d0           -0.00001273 s
D1            2.00000000 s
d13           0.00000400 s
D16           0.00020000 s
DELTA         0.00120400 s
in0       0 sec
ST1CNT              128
d0orig       -0.00001273 s
ph1loop               0
t1loop                0
SFO1         500.1327507 M
NUC1                 1H
P1                10.00 u:
p2                20.00 u:
PLW1         13.50000000 W
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
GPZ1              10.00 %
GPZ2              20.00 %
P16             1000.00 u:

F1 - Acquisition paramete:
TD                  256
SFO1          500.1328 M
FIDRES       19.536423 H:
```






```
Current Data Parameters
NAME        KL-4-221B_F7
EXPNO                  5
PROCNO                 1

F1 - Acquisition parameters
TD                   256
SFO1          125.7678 MHz
FIDRES         98.255890 Hz
SW              200.000 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                  2048
SF          500.1300135 MHz
WDW                QSINE
SSB                    2
LB         0 Hz
GB         0
PC                  1.00

F1 - Processing parameters
SI                  2048
MC2         echo-antiecho
SF           125.7578472 MHz
WDW                TRAP
SSB                    2
LB         0 Hz
GB         0
```

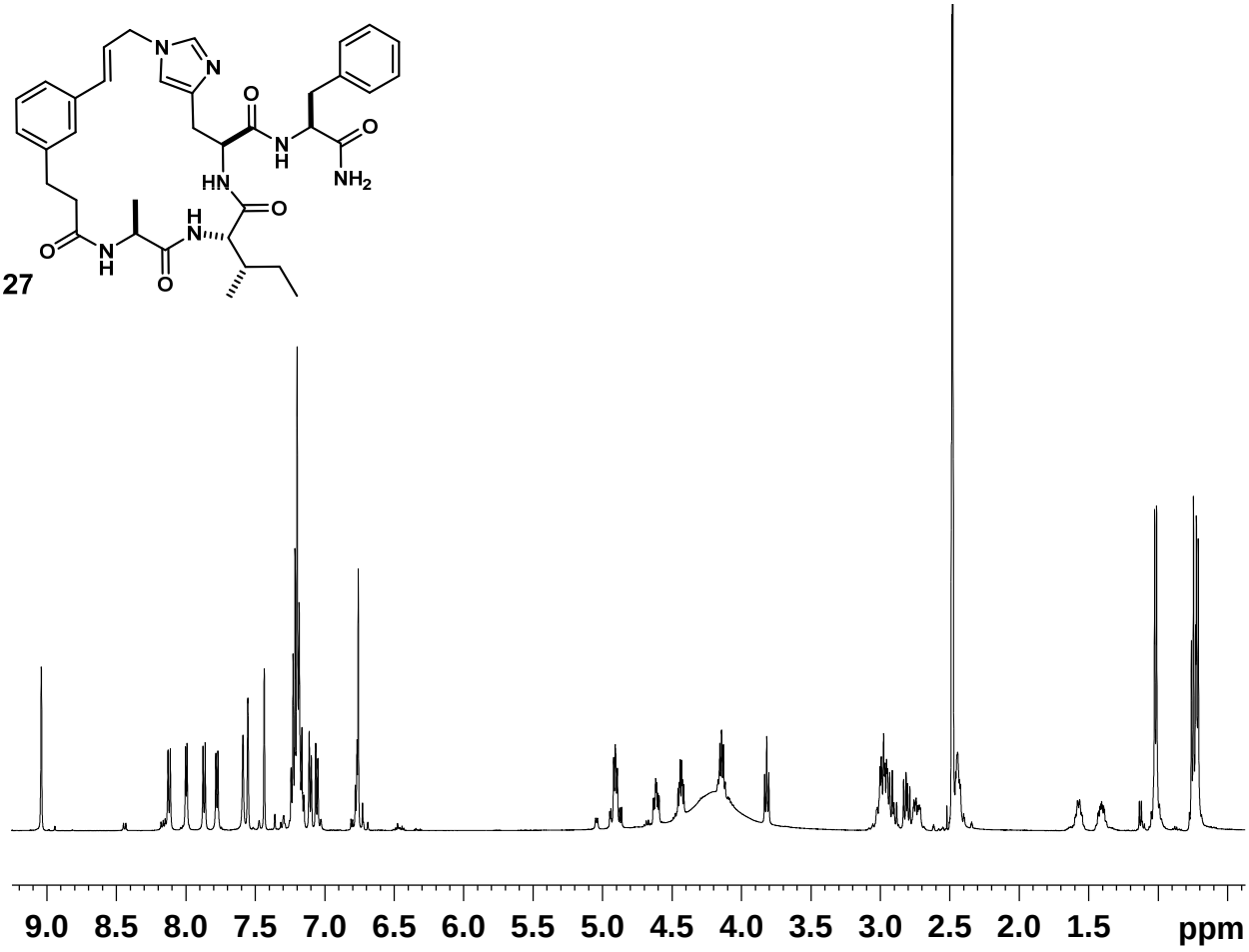




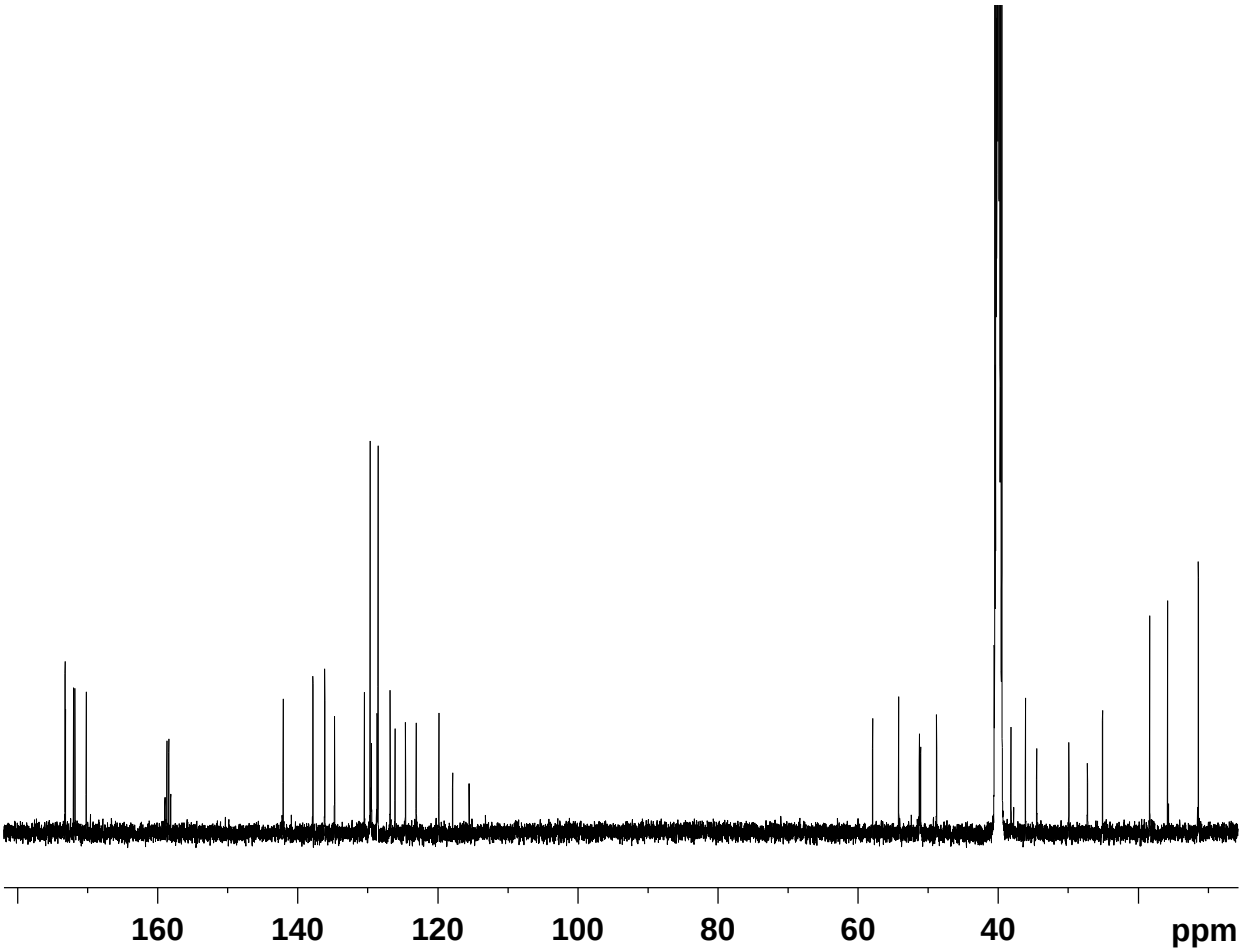

```
Current Data Parameters
NAME        KL-4-221B_F7
EXPNO                  6
PROCNO                 1

F1 - Acquisition parameters
TD                   120
SFO1          125.7704 MHz
FIDRES       209.616226 Hz
SW             199.999 ppm
FnMODE                 QF

F2 - Processing parameters
SI                  2048
SF          500.1300135 MHz
WDW                QSINE
SSB                    2
LB         0 Hz
GB         0
PC                  1.00

F1 - Processing parameters
SI                  2048
MC2                   QF
SF          125.7578472 MHz
WDW                QSINE
SSB                    2
LB         0 Hz
GB         0
```

Cyclic-Ala-Ile-His-Phe-NH-$_2$ (27):

27

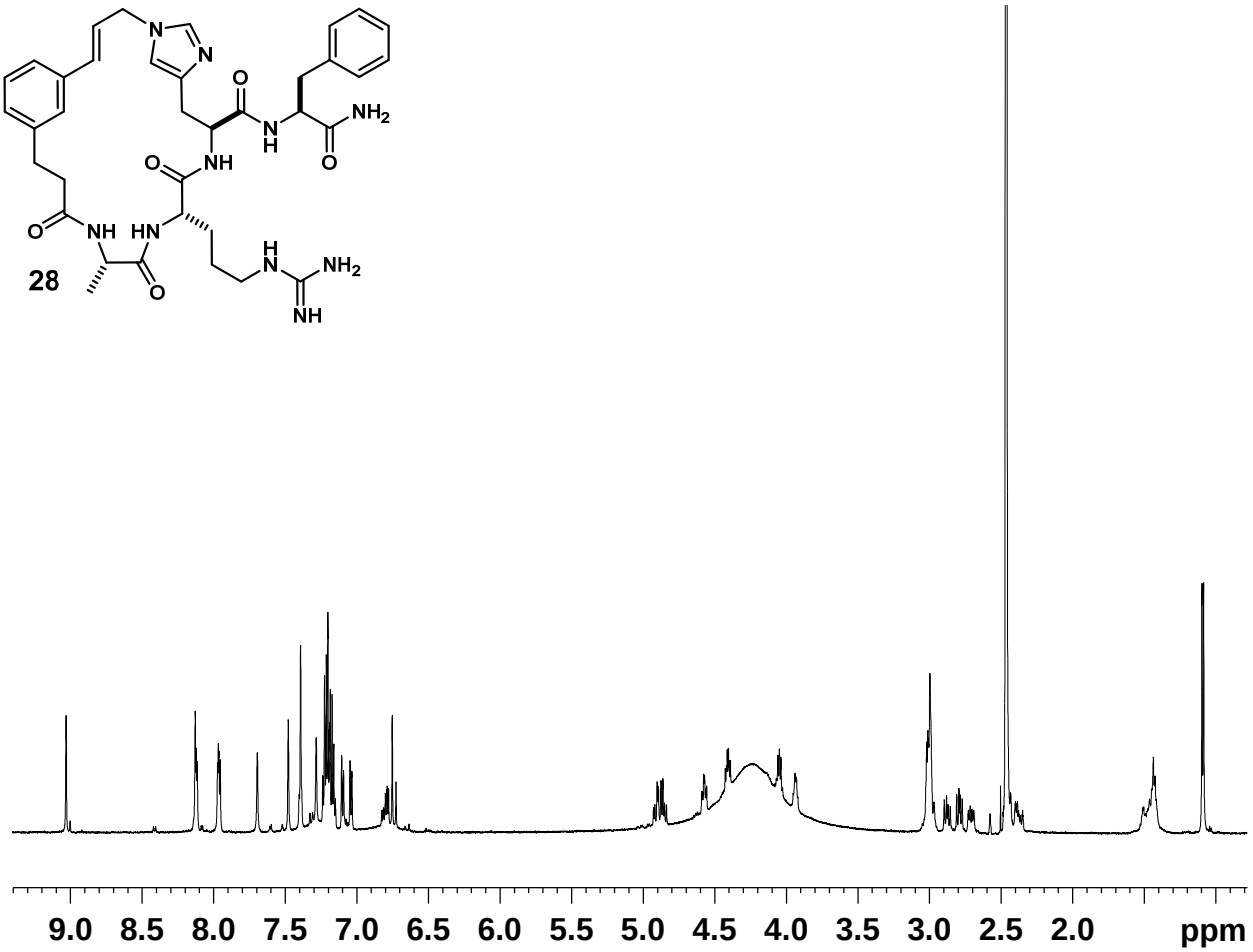



```
Current Data Parameters
NAME      HisA6_cycleF33
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20121208
Time               12.49
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                 24.37
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         500.1330008 MHz
NUC1                   1H
P1                 10.00 usec
PLW1         13.50000000 W

F2 - Processing parameters
SI                 65536
SF           500.1300146 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.40
```

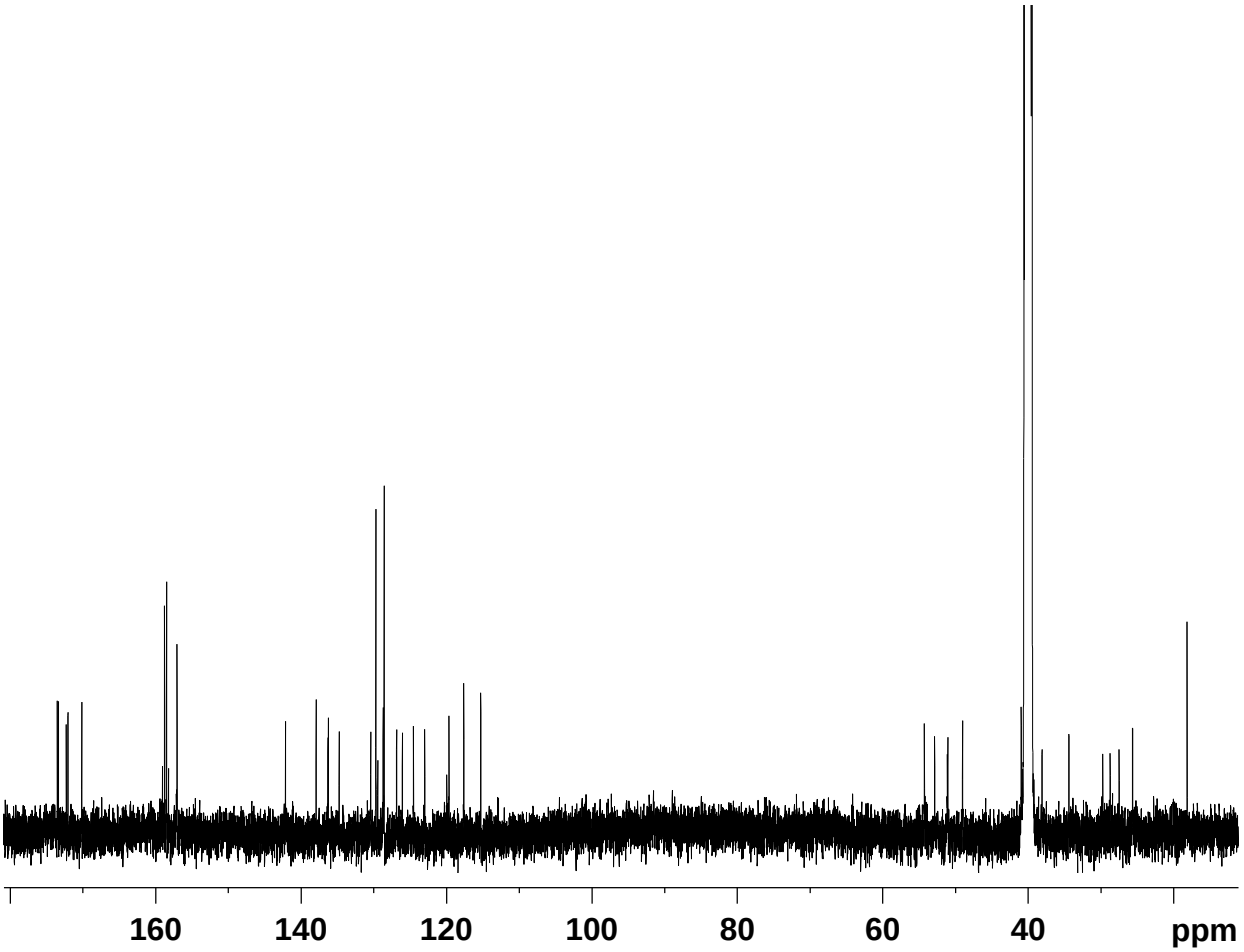



```
Current Data Parameters
NAME      HisA6_cycleF33
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20121208
Time               12.50
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                 65536
SOLVENT             DMSO
NS                   186
DS                     2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW                16.000 usec
DE                18.00 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         125.7722511 MHz
NUC1                  13C
P1                 9.63 usec
PLW1         23.00000000 W

======== CHANNEL f2 ========
SFO2         500.1330008 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2         13.50000000 W
PLW12         0.21094000 W
PLW13         0.13500001 W

F2 - Processing parameters
SI                131072
SF           125.7577892 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

Cyclic-Ala-Arg-His-Phe-NH-$_2$ (28):



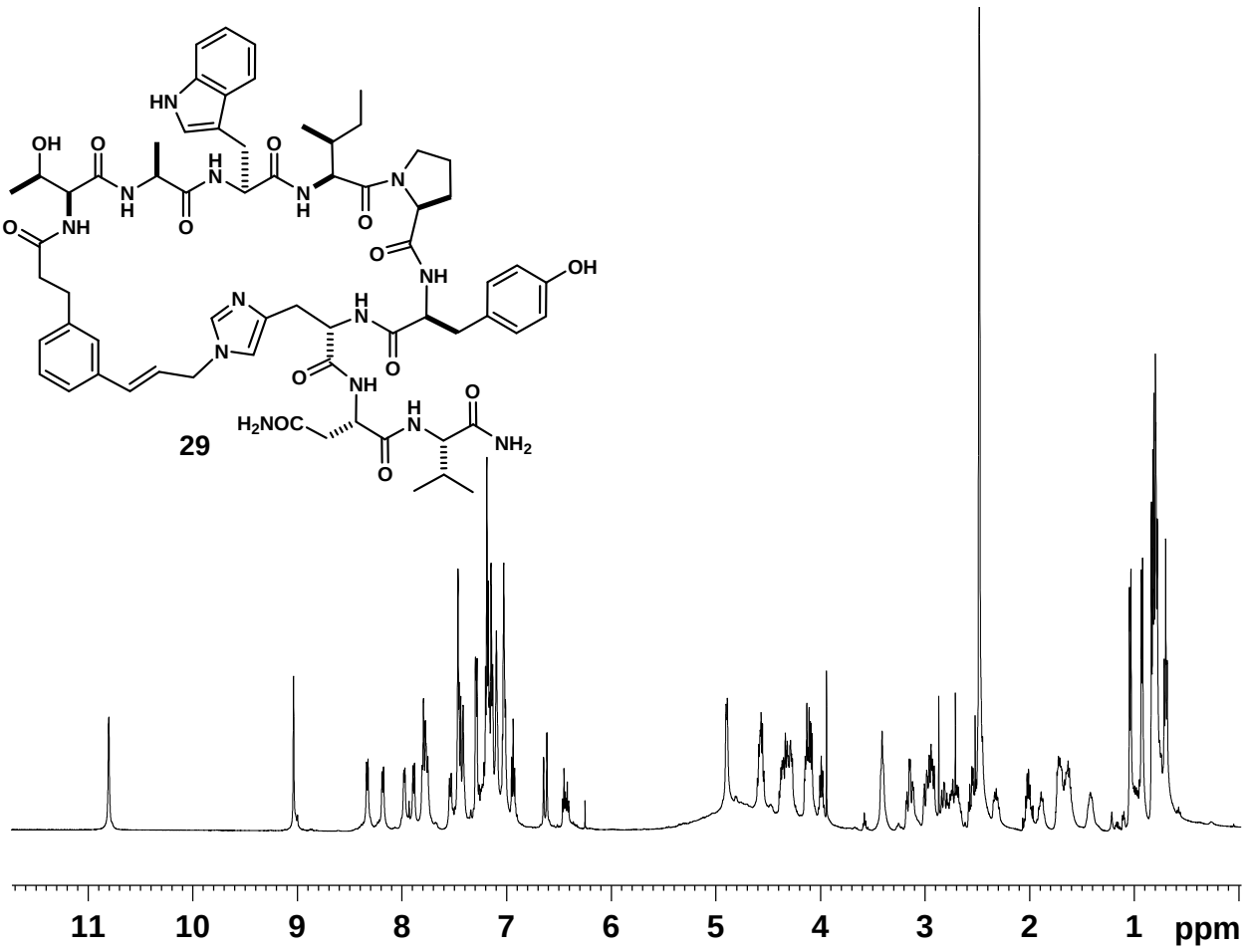

```
Current Data Parameters
NAME         His_A5_F24
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20121207
Time               17.25
INSTRUM            av600
PROBHD   5 mm TBI5
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                   16
DS                    0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                  256
DW               40.400 usec
DE                6.50 usec
TE               294.1 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                 9.10 usec
PL1               -2.00 dB
PL1W        39.81071854 W
SFO1       600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



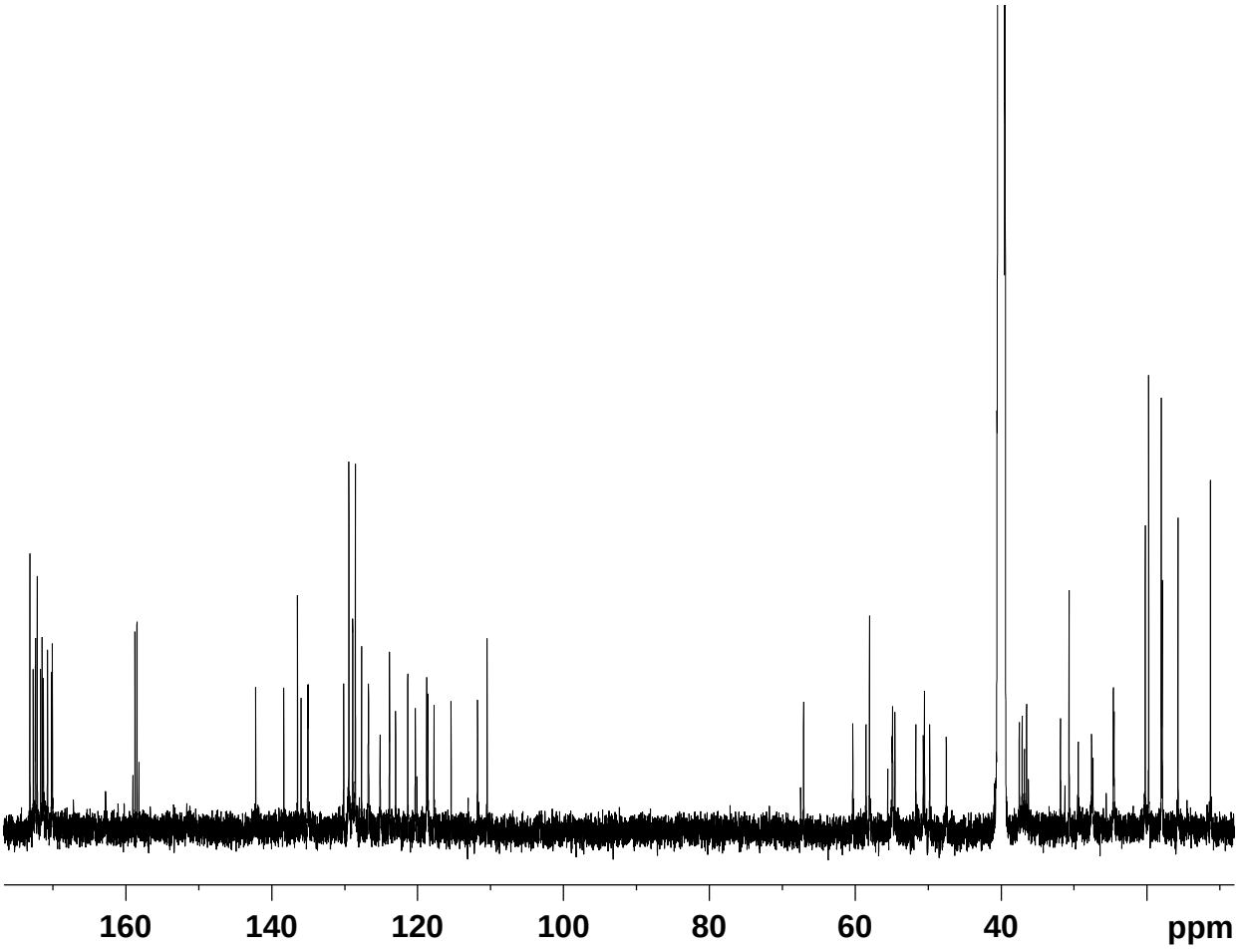

```
Current Data Parameters
NAME         His_A5_F24
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_           20130122
Time               10.40
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  472
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE                18.00 usec
TE               298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1       125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2       500.1330008 MHz
NUC2                 1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

Cyclic-Thr-Ala-Trp-Ile-Pro-Tyr-His-Asn-Val (29):

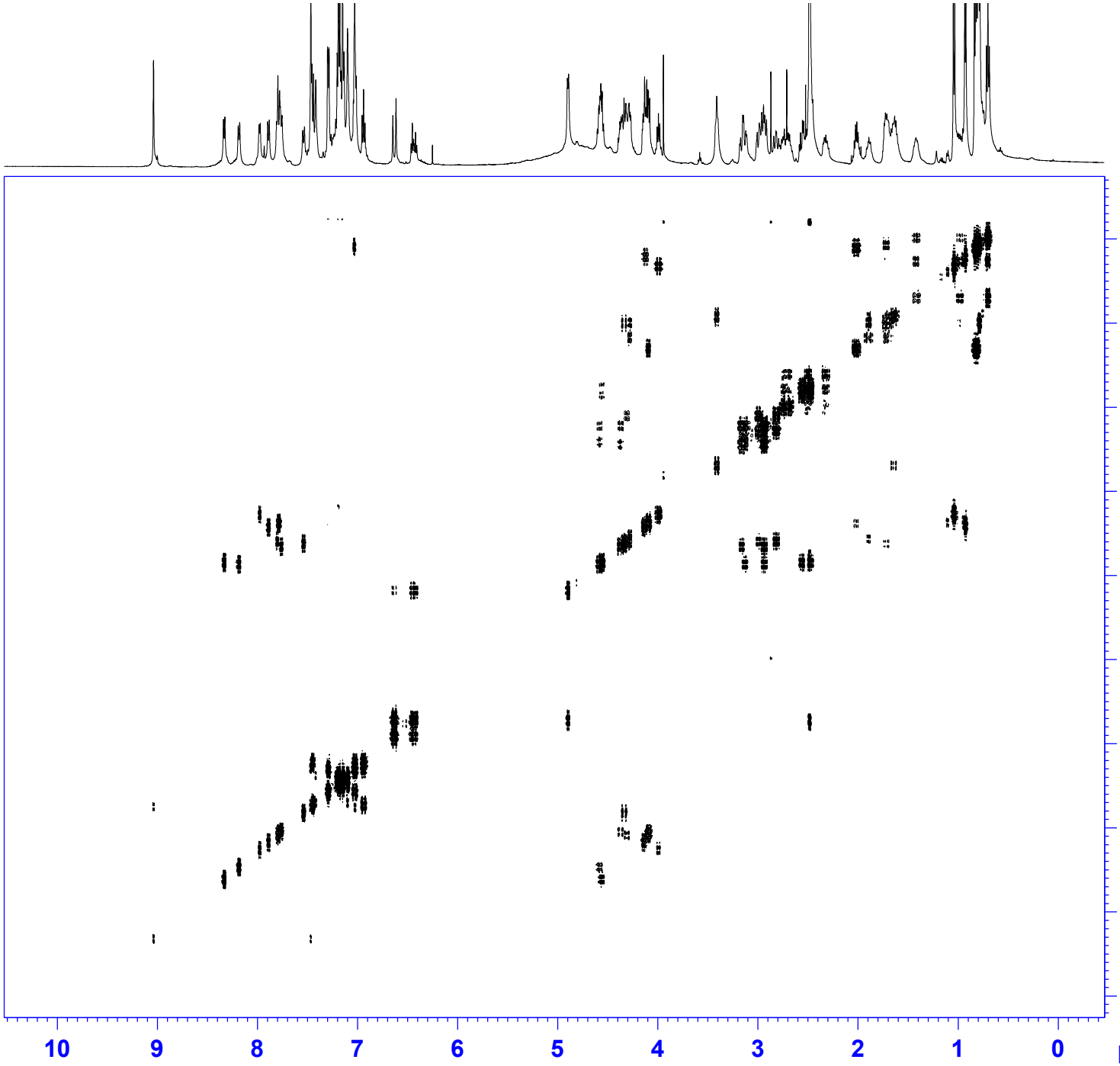
29

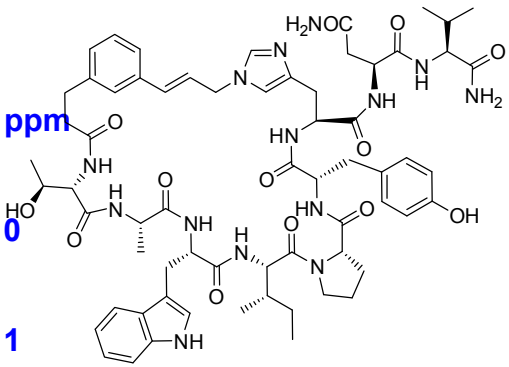



```
Current Data Parameters
NAME          Kl-4-184B
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20120419
Time               19.16
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG             zg30
TD                 65536
SOLVENT             DMSO
NS                     8
DS                     0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                160.04
DW               50.000 usec
DE               10.00 usec
TE                296.0 K
D1            2.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
PLW1         13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                 65536
SF          500.1300146 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.00
```

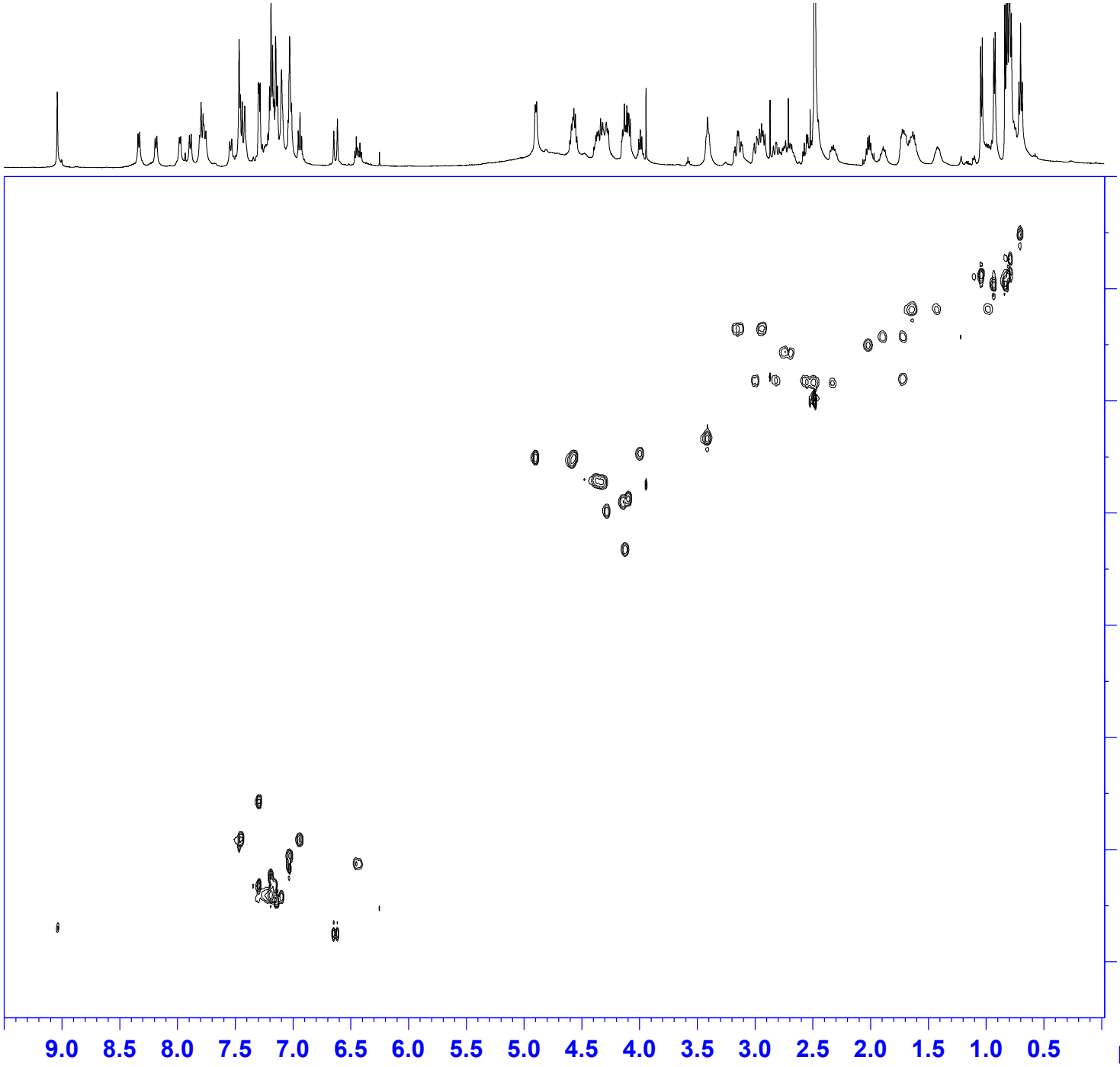


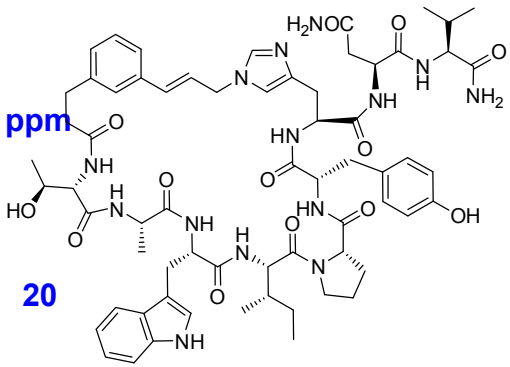

```
Current Data Parameters
NAME          Kl-4-184B
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_           20120419
Time               19.18
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                 65536
SOLVENT             DMSO
NS                   272
DS                     2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW               16.000 usec
DE               18.00 usec
TE                296.0 K
D1            2.00000000 sec
d11           0.03000000 sec
DELTA         1.89999998 sec
TD0                    1
SFO1        125.7722511 MHz
NUC1                 13C
P1                9.63 usec
PLW1         23.00000000 W
SFO2        500.1330008 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2            80.00 usec
PLW2         13.50000000 W
PLW12         0.21094000 W
PLW13         0.13500001 W

F2 - Processing parameters
SI                131072
SF          125.7577892 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```





```
Current Data Parameters
NAME            Kl-4-184B
EXPNO                   4
PROCNO                  1

F1 - Acquisition parameters
TD                    256
SFO1           500.1328 MHz
FIDRES        19.536423 Hz
SW               10.000 ppm
FnMODE       States-TPPI

F2 - Processing parameters
SI                   2048
SF           500.1300135 MHz
WDW                  SINE
SSB                     1
LB        0 Hz
GB        0
PC                   1.00

F1 - Processing parameters
SI                   2048
MC2          States-TPPI
SF           500.1303720 MHz
WDW                  SINE
SSB                     1
LB        0 Hz
GB        0
```



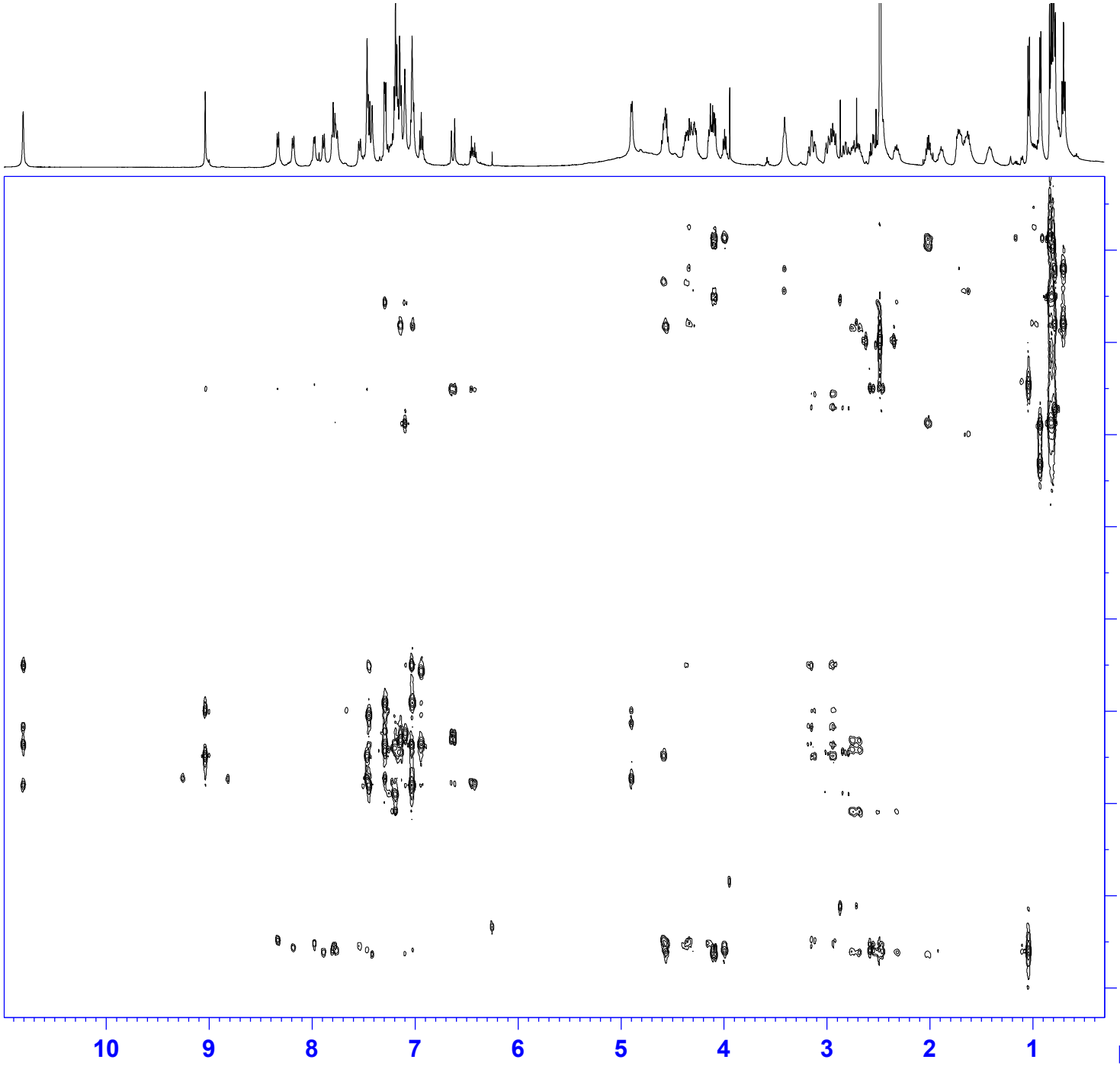


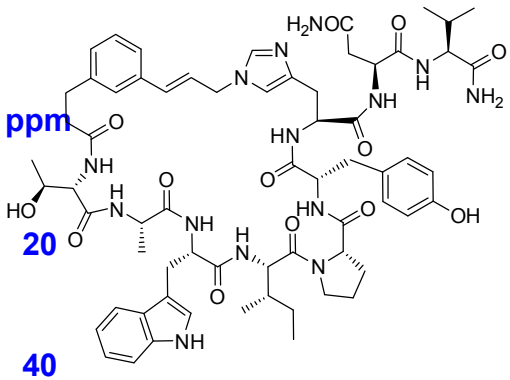
Current Data Parameters
NAME Kl-4-184B
EXPNO 6
PROCNO 1

F1 - Acquisition parameters
TD 248
SFO1 125.7678 MHz
FIDRES 101.425430 Hz
SW 200.000 ppm
FnMODE Echo-Antiecho

F2 - Processing parameters
SI 2048
SF 500.1300135 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0
PC 1.00

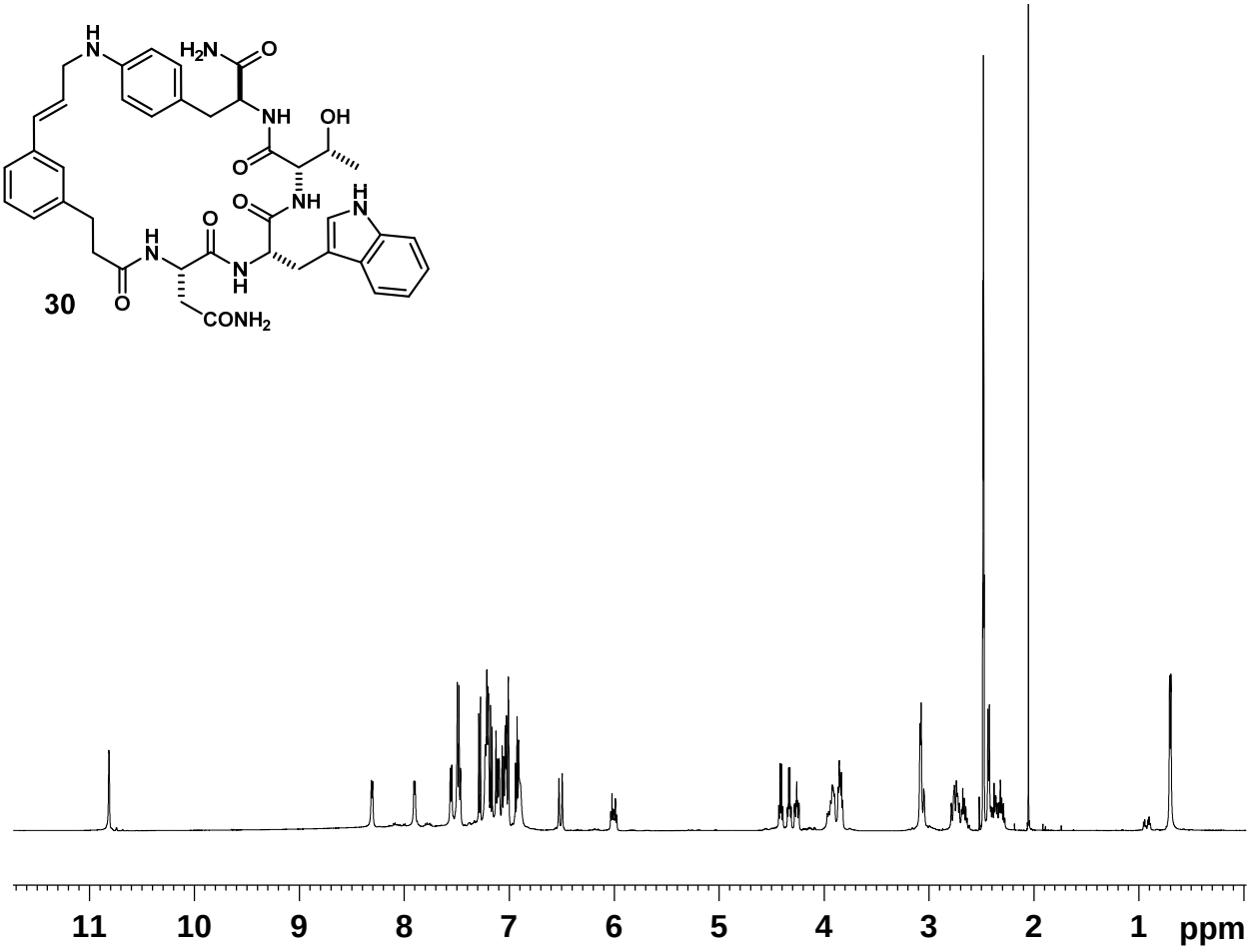
F1 - Processing parameters
SI 2048
MC2 echo-antiecho
SF 125.7578472 MHz
WDW SINE
SSB 2
LB 0 Hz
GB 0



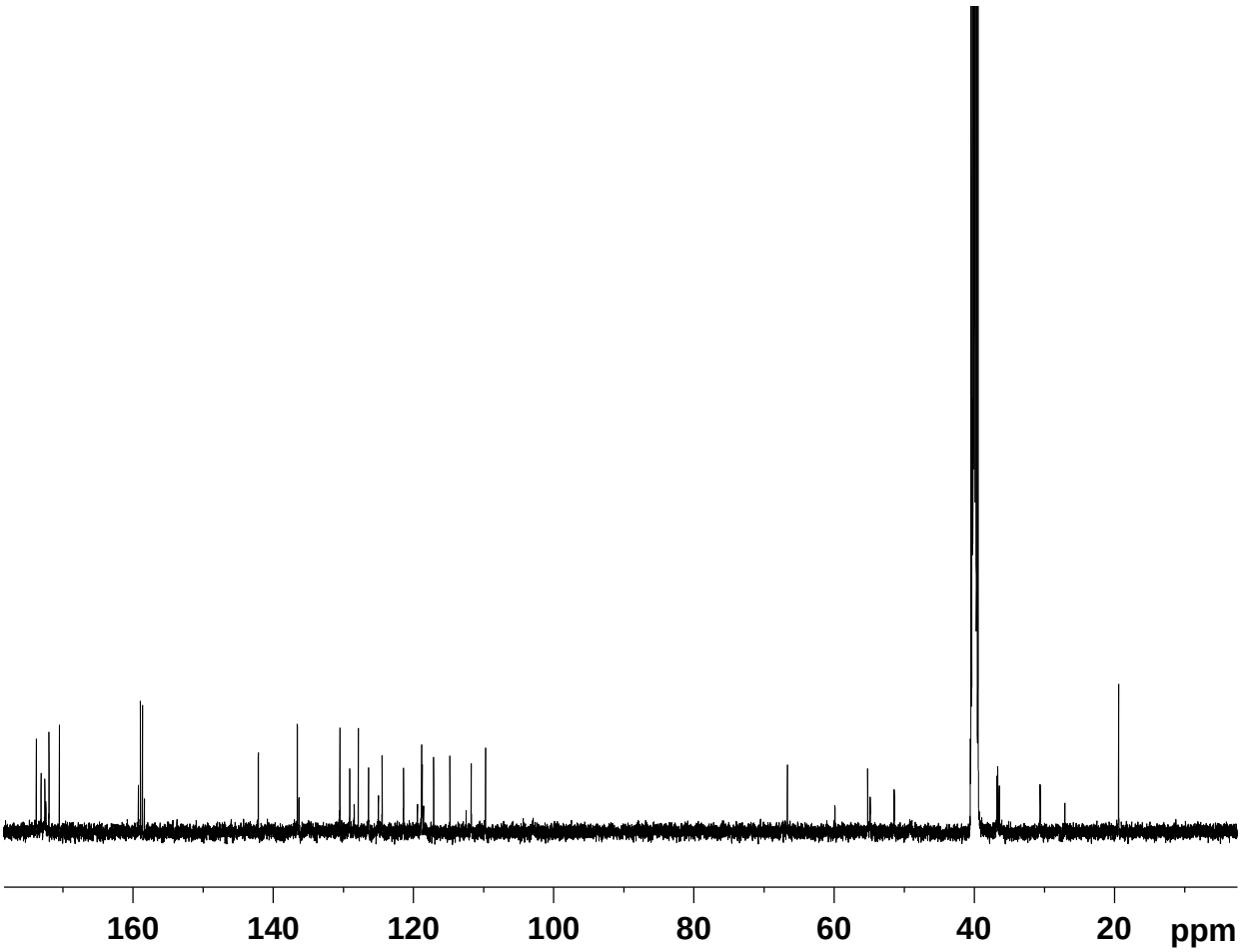


```
Current Data Parameters
NAME            Kl-4-184B
EXPNO                   5
PROCNO                  1

F1 - Acquisition parameters
TD                    256
SFO1           125.7704 MHz
FIDRES         98.257607 Hz
SW               199.999 ppm
FnMODE                 QF

F2 - Processing parameters
SI                   2048
SF          500.1300135 MHz
WDW                 QSINE
SSB                     2
LB        0 Hz
GB        0
PC                   1.00

F1 - Processing parameters
SI                   2048
MC2                    QF
SF          125.7578472 MHz
WDW                 QSINE
SSB                     2
LB        0 Hz
GB        0
```

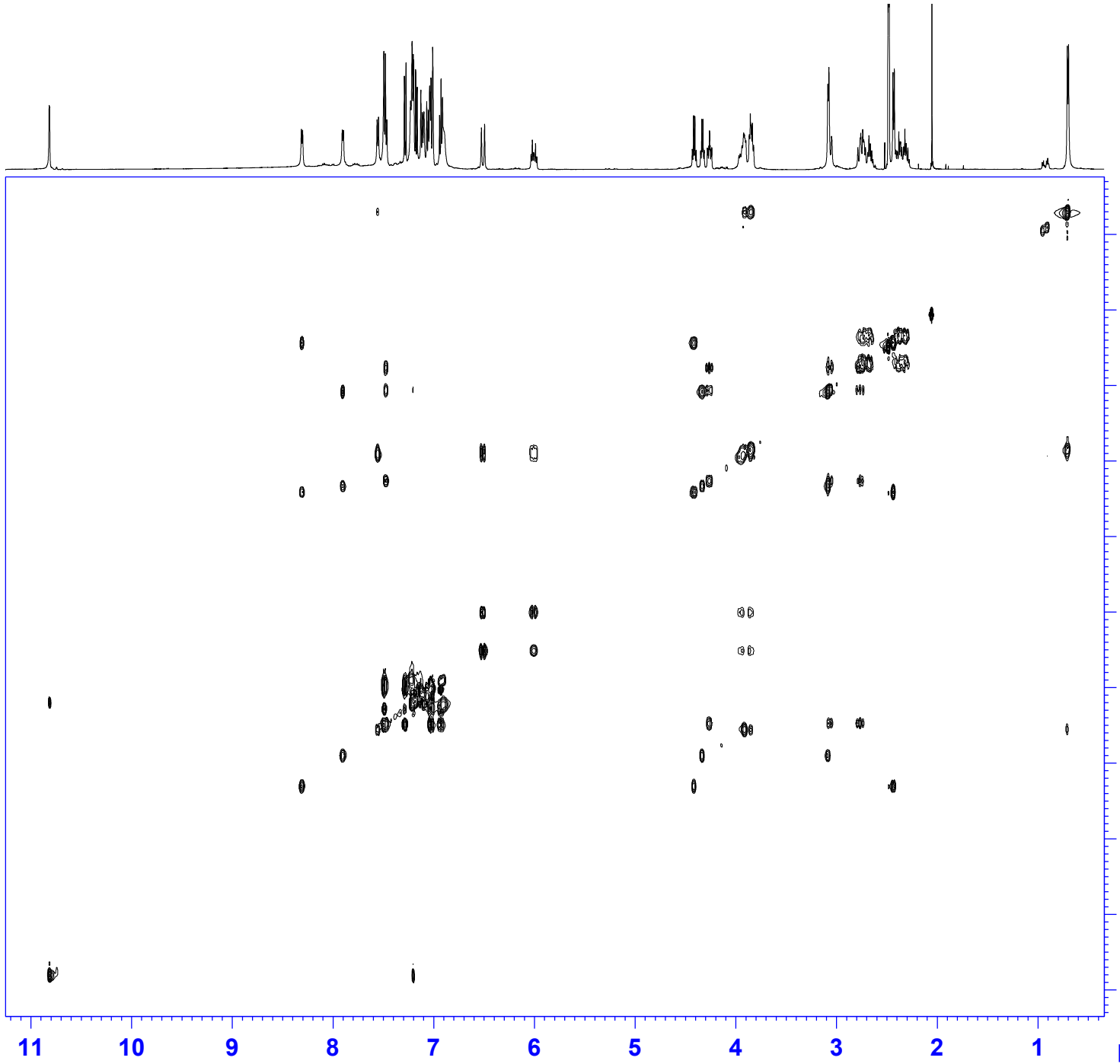
Cyclic-Asn-Trp-Thr-Phe(4-NH_2) (30):

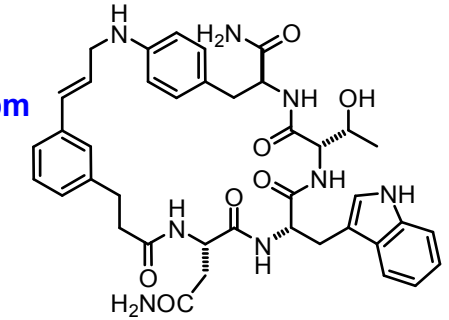



```
Current Data Parameters
NAME           KL-5-158
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130416
Time              19.41
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ             3.2767999 sec
RG                   11
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

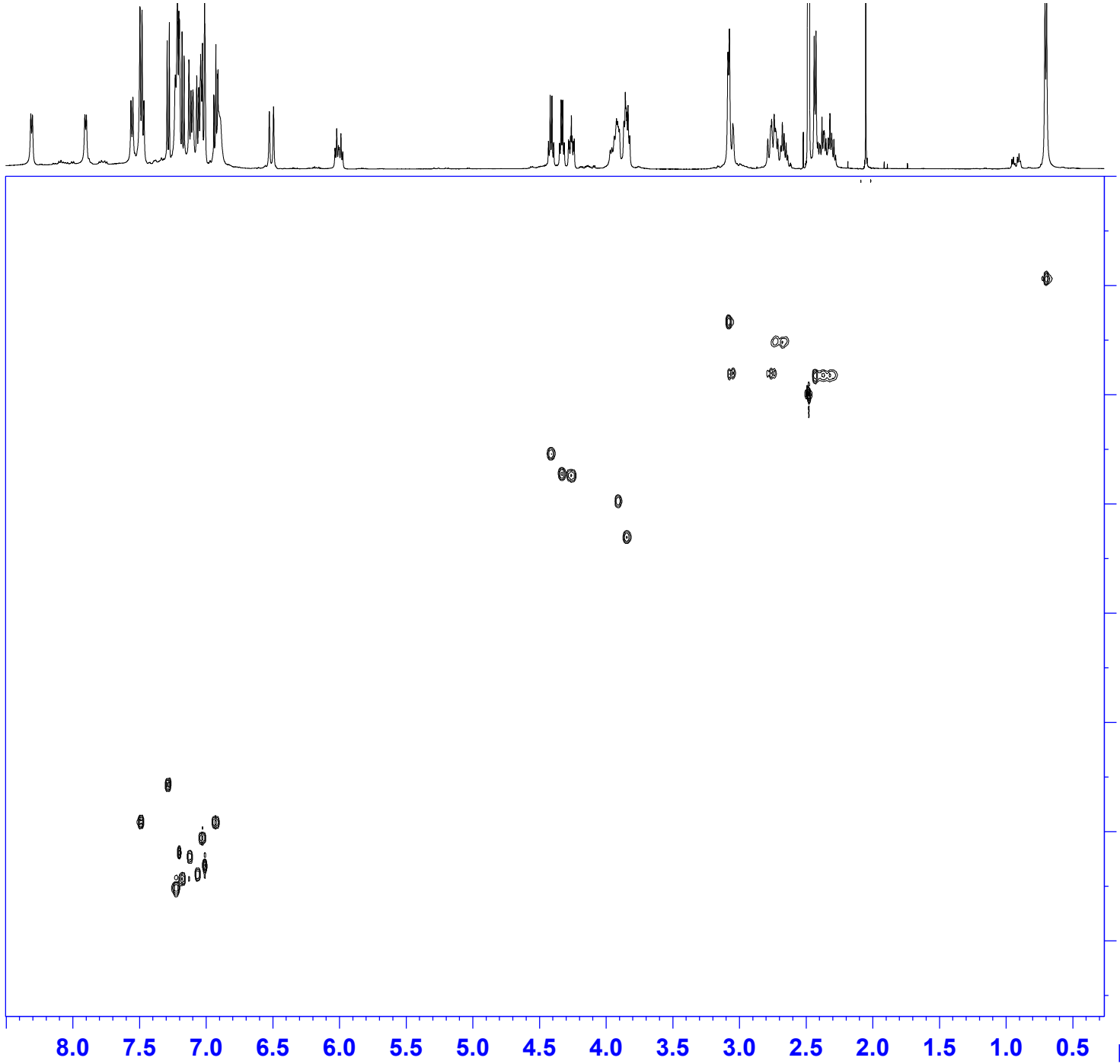


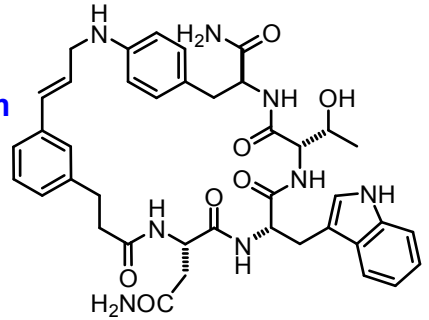

```
Current Data Parameters
NAME           KL-5-158
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130416
Time              19.45
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                   82
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW               16.000 usec
DE               18.00 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```



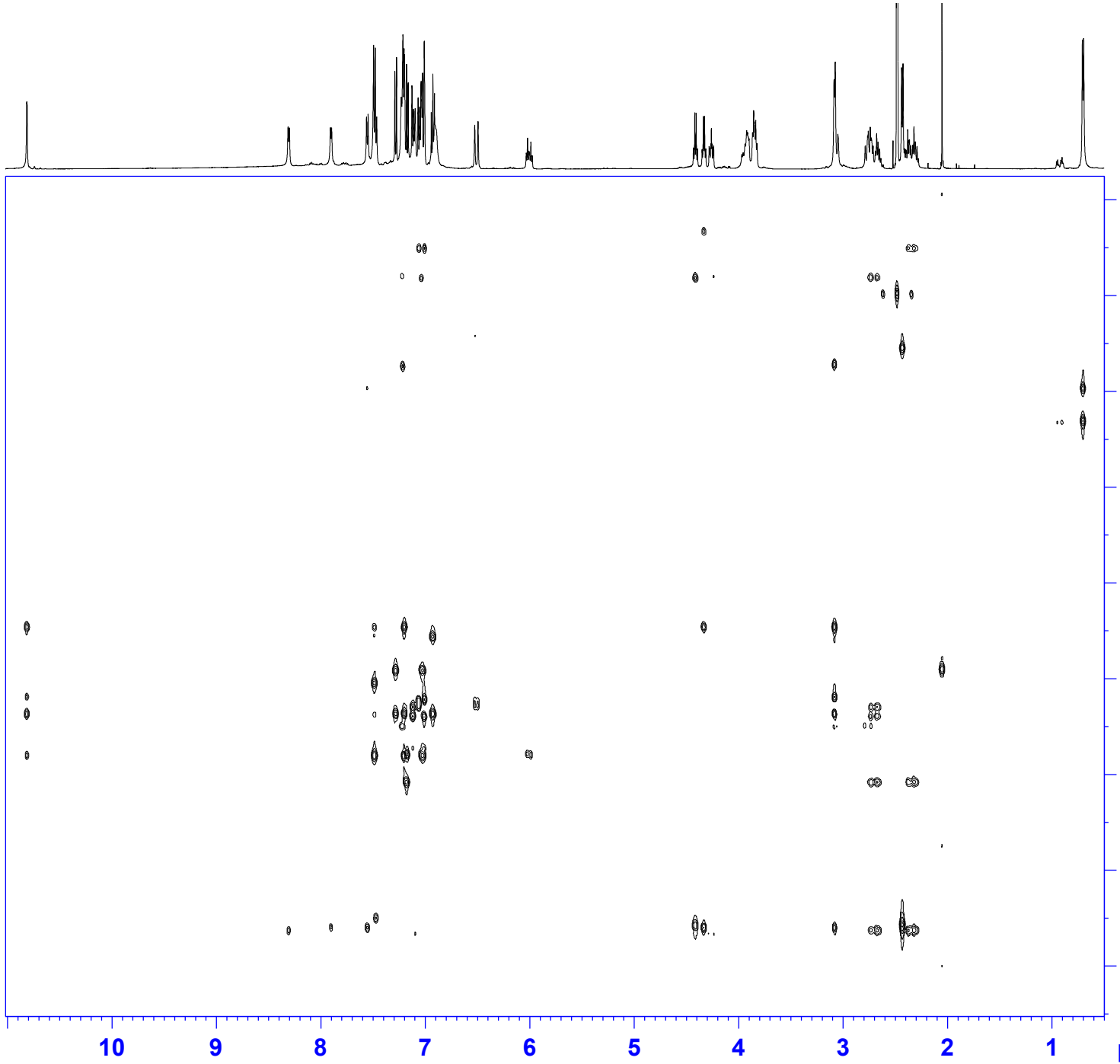


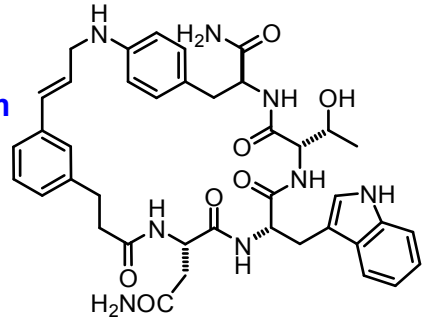
```
Current Data Parameters
NAME            KL-5-158
EXPNO                  5
PROCNO                 1

F2 - Acquisition Paramete
Date_           20130417
Time_              18.14
INSTRUM            av500
PROBHD   5 mm DCH 13C-1
PULPROG     mlevetgp.js
TD                 2048
SOLVENT            DMSO
NS                    2
DS                    8
SWH             6009.615 H
FIDRES          2.934382 H
AQ              0.1703936 s
RG                 37.94
DW                83.200 u
DE                10.00 u
TE                298.0 K
D0             0.00000300 s
D1             2.00000000 s
D9             0.06000000 s
D11            0.03000000 s
D12            0.00002000 s
D16            0.00020000 s
IN0            0.00016660 s
L1                    24

======== CHANNEL f1 =====
SFO1         500.1330008 M
NUC1                1H
P1                 9.50 u
P2                19.00 u
P5                26.68 u
P6                40.00 u
P7                80.00 u
P17             2500.00 u
PLW1         13.50000000 W
PLW10         0.84375000 W

====== GRADIENT CHANNEL =
GPNAM[1]        SINE.100
GPNAM[2]        SINE.100
GPZ1               30.00 %
```






```
Current Data Parameters
NAME            KL-5-158
EXPNO                  6
PROCNO                 1

F2 - Acquisition Paramete
Date_           20130417
Time                18.34
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      hsqcedetgp
TD                  2048
SOLVENT             DMSO
NS                     2
DS                    16
SWH            5000.000 H
FIDRES         2.441406 H
AQ             0.2048000 s
RG                202.91
DW               100.000 u
DE                10.00 u
TE                298.0 K
CNST2        145.0000000
D0            0.00000300 s
D1            1.50000000 s
D4            0.00172414 s
D11           0.03000000 s
D13           0.00000400 s
D16           0.00020000 s
D21           0.00345000 s
IN0           0.00001990 s
ZGOPTNS

======== CHANNEL f1 =====
SFO1         500.1325007 M
NUC1                1H
P1                9.50 u
P2               19.00 u
P28      0 usec
PLW1        13.50000000 W

======== CHANNEL f2 =====
SFO2         125.7678496 M
NUC2               13C
CPDPRG[2          garp
P3                9.63 u
P4               19.26 u
```

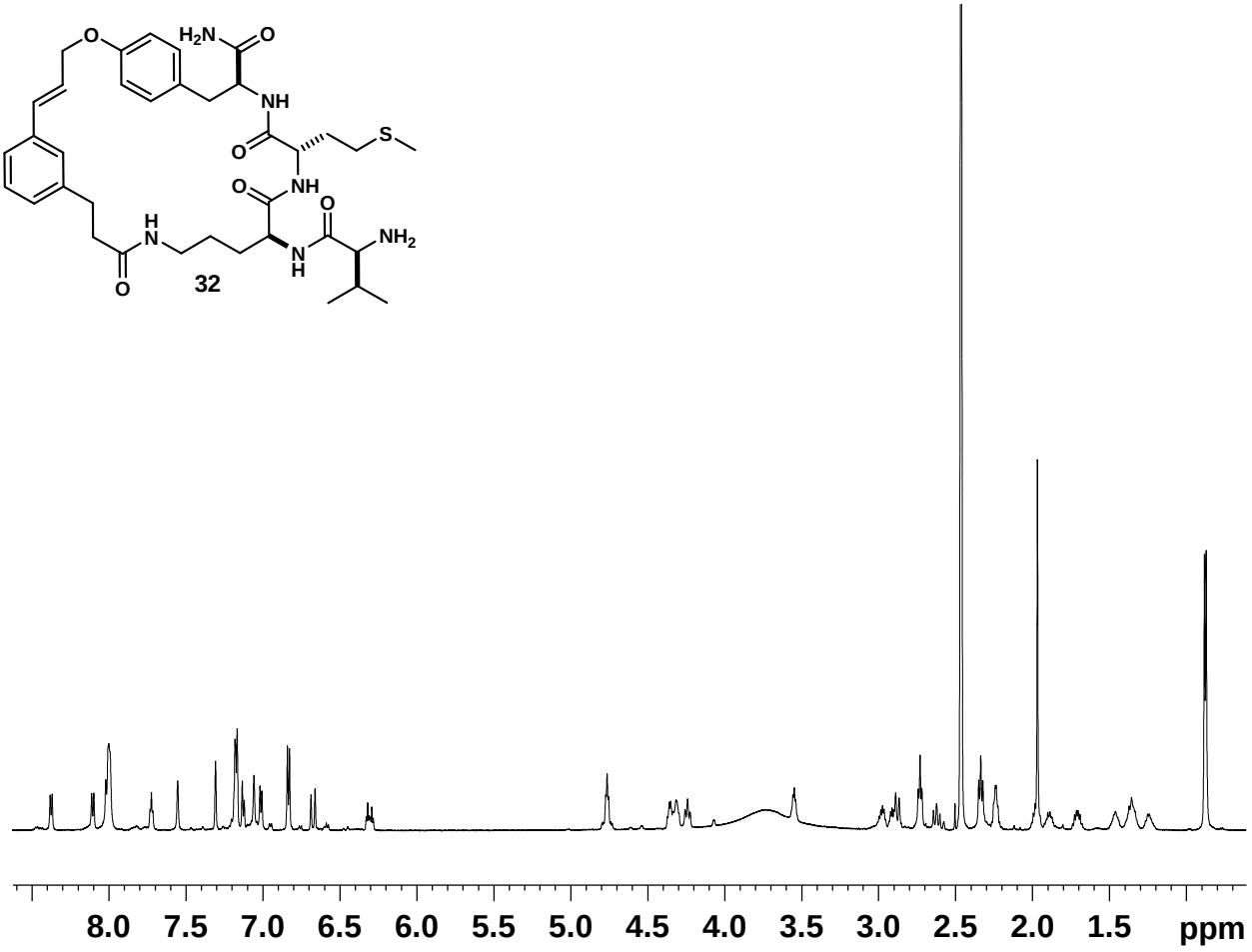




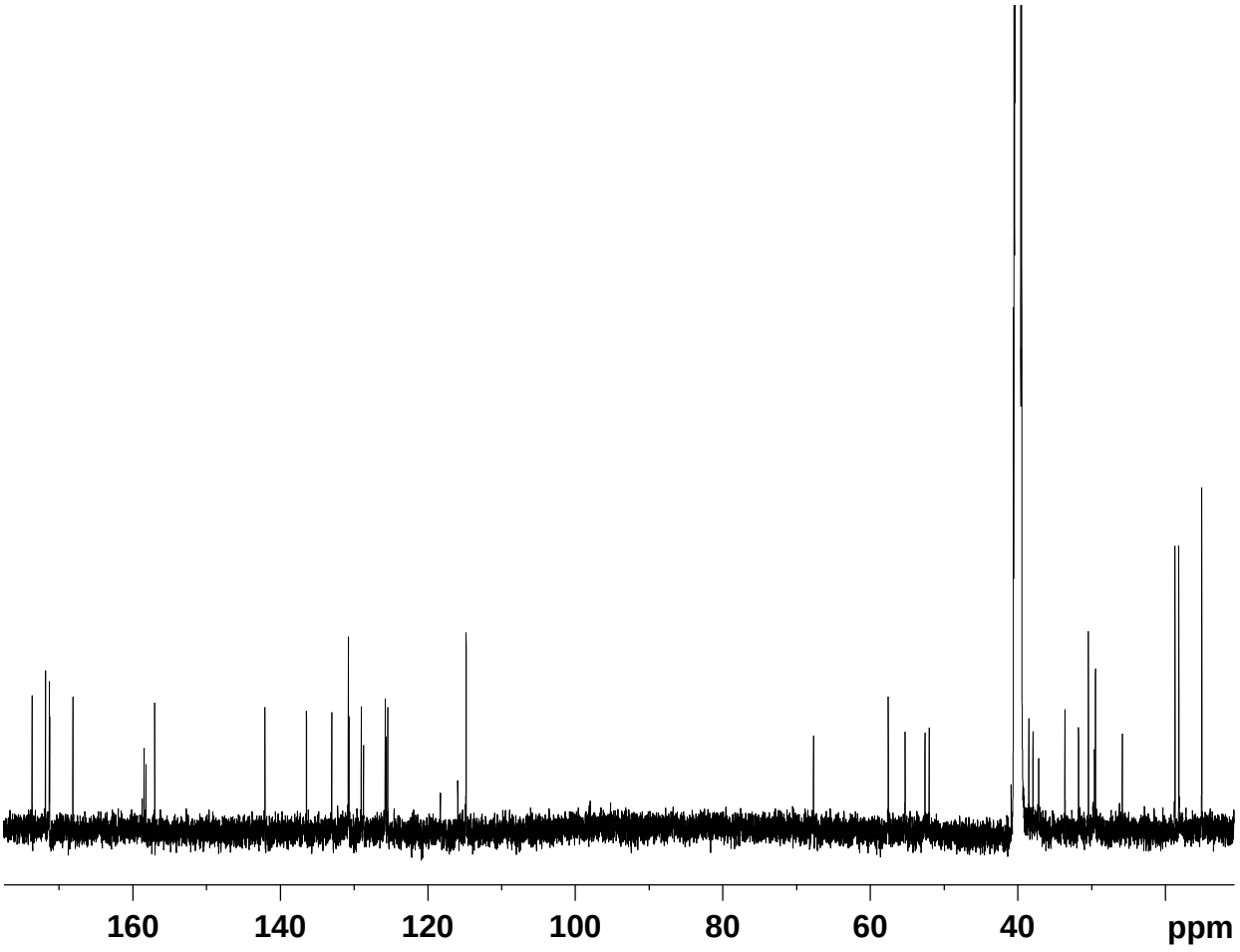

```
Current Data Parameters
NAME            KL-5-158
EXPNO                  7
PROCNO                 1

F2 - Acquisition Paramete
Date_           20130417
Time                18.50
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG    hmbcgpl2ndqf
TD                  2048
SOLVENT             DMSO
NS                     2
DS                    16
SWH             6009.615 H
FIDRES          2.934382 H
AQ              0.1703936 s
RG                202.91
DW                83.200 u
DE                10.00 u
TE                298.0 K
CNST6        120.0000000
CNST7        160.0000000
CNST13         7.0000000
D0           0.00000300 s
D1           1.50000000 s
D6           0.07142857 s
D16          0.00020000 s
IN0          0.00001990 s

======== CHANNEL f1 =====
SFO1         500.1330008 M
NUC1                1H
P1                9.50 u
P2               19.00 u
PLW1         13.50000000 W

======== CHANNEL f2 =====
SFO2         125.7703648 M
NUC2               13C
P3                9.63 u
PLW2         23.01399994 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
```

Cyclic-Val-Orn-Met-Try (32):

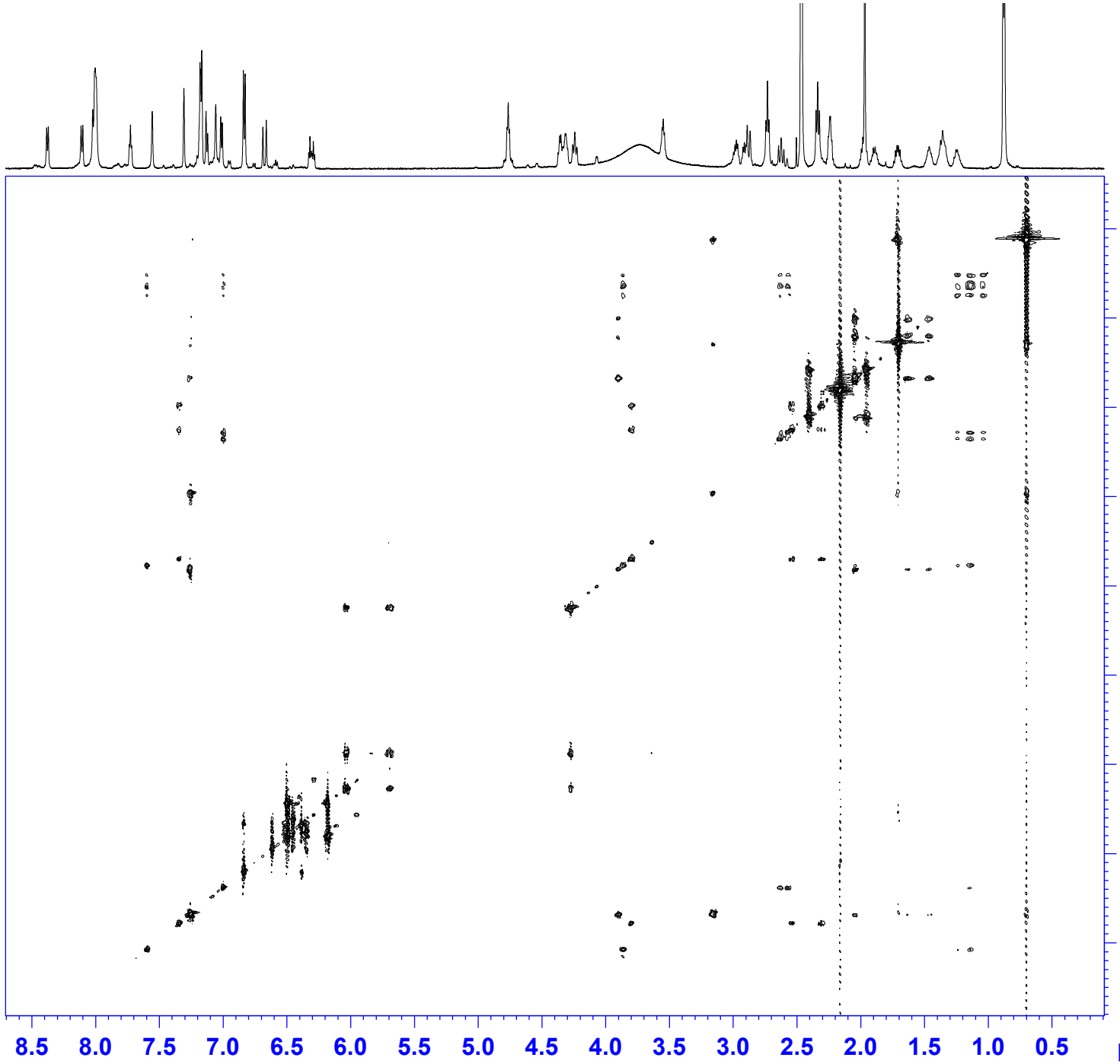
32

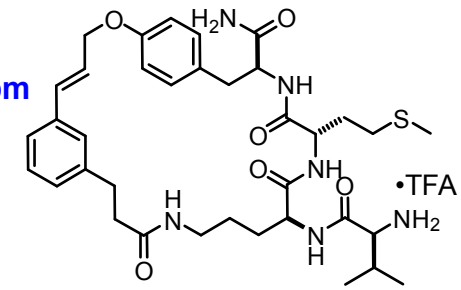



```
Current Data Parameters
NAME     KL-5-156C_AV600
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20130411
Time              20.12
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG             zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                  181
DW               40.400 usec
DE                6.50 usec
TE               294.1 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                 9.75 usec
PL1               -2.00 dB
PL1W        39.81071854 W
SFO1        600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.40
```

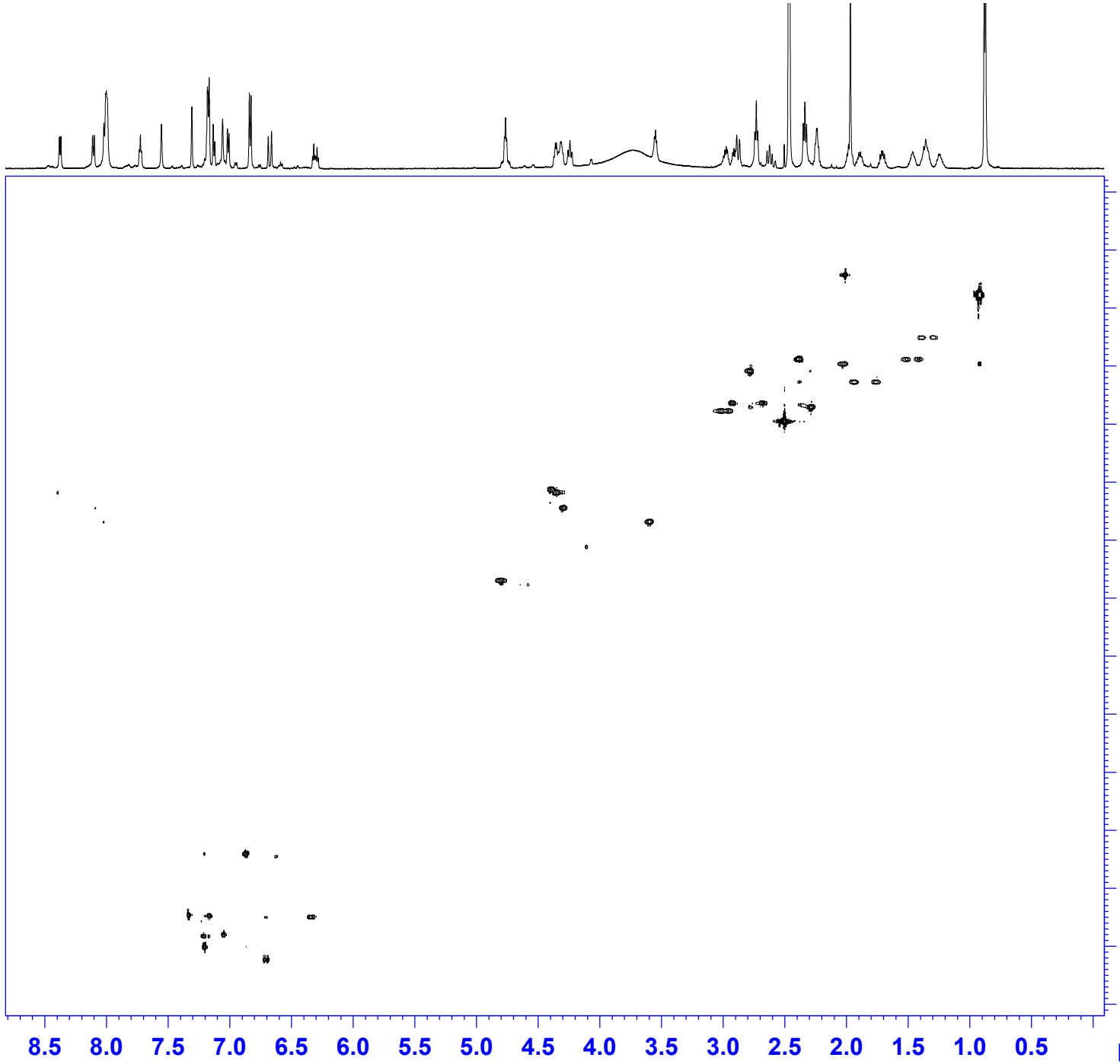


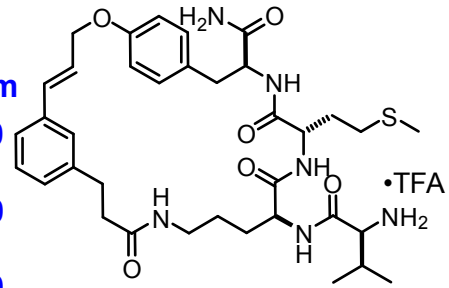

```
Current Data Parameters
NAME          KL-5-156C
EXPNO                 4
PROCNO                1

F2 - Acquisition Parameters
Date_           20130425
Time              19.49
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  487
DS                    2
SWH           31250.000 Hz
FIDRES         0.476837 Hz
AQ            1.0485760 sec
RG                202.91
DW               16.000 usec
DE                18.00 usec
TE               298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1        23.00000000 W

======== CHANNEL f2 ========
SFO2        500.1330008 MHz
NUC2                 1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2        13.50000000 W
PLW12        0.21094000 W
PLW13        0.13500001 W

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```



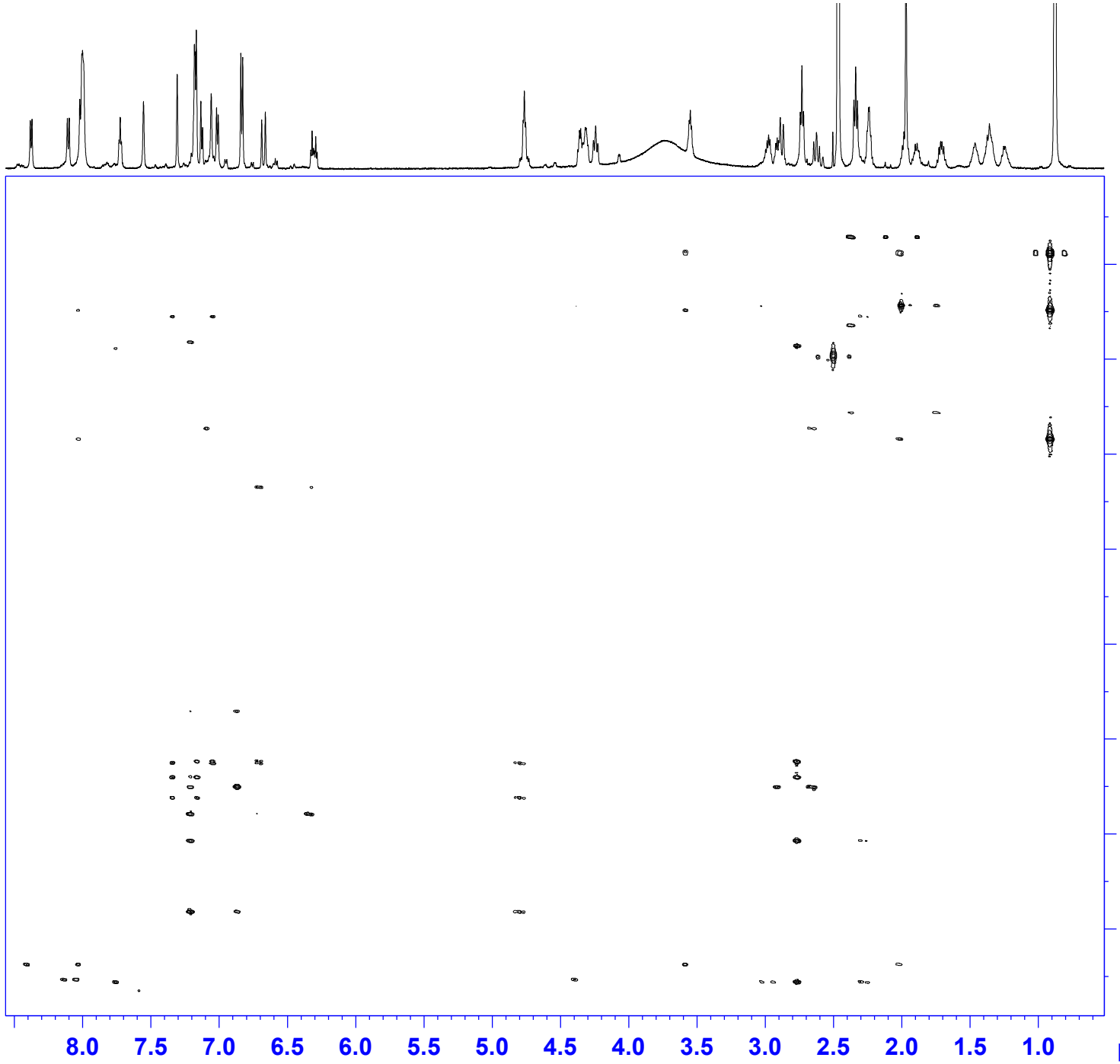


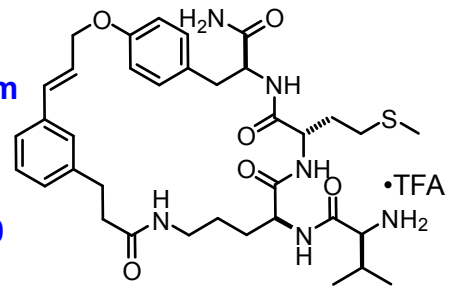

```
Current Data Parameters
NAME      KL-5-156C_AV600
EXPNO                   3
PROCNO                  1

F1 - Acquisition parameters
TD                    600
SFO1           600.133 MHz
FIDRES       10.002216 Hz
SW             10.000 ppm
FnMODE    Echo-Antiecho

F2 - Processing parameters
SI                   1024
SF          600.1300273 MHz
WDW                 QSINE
SSB                     2
LB        0 Hz
GB        0
PC                   1.00

F1 - Processing parameters
SI                   1024
MC2         echo-antiecho
SF          600.1300273 MHz
WDW                 QSINE
SSB                     2
LB        0 Hz
GB        0
```






```
Current Data Parameters
NAME      KL-5-156C_AV600
EXPNO                   5
PROCNO                  1

F1 - Acquisition parameters
TD                    512
SFO1           150.9134 MHz
FIDRES        47.160427 Hz
SW              160.000 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                   4096
SF           600.1300051 MHz
WDW                    EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40

F1 - Processing parameters
SI                   4096
MC2         echo-antiecho
SF           150.9029231 MHz
WDW                 TRAP
SSB                    2
LB        0 Hz
GB        0
```

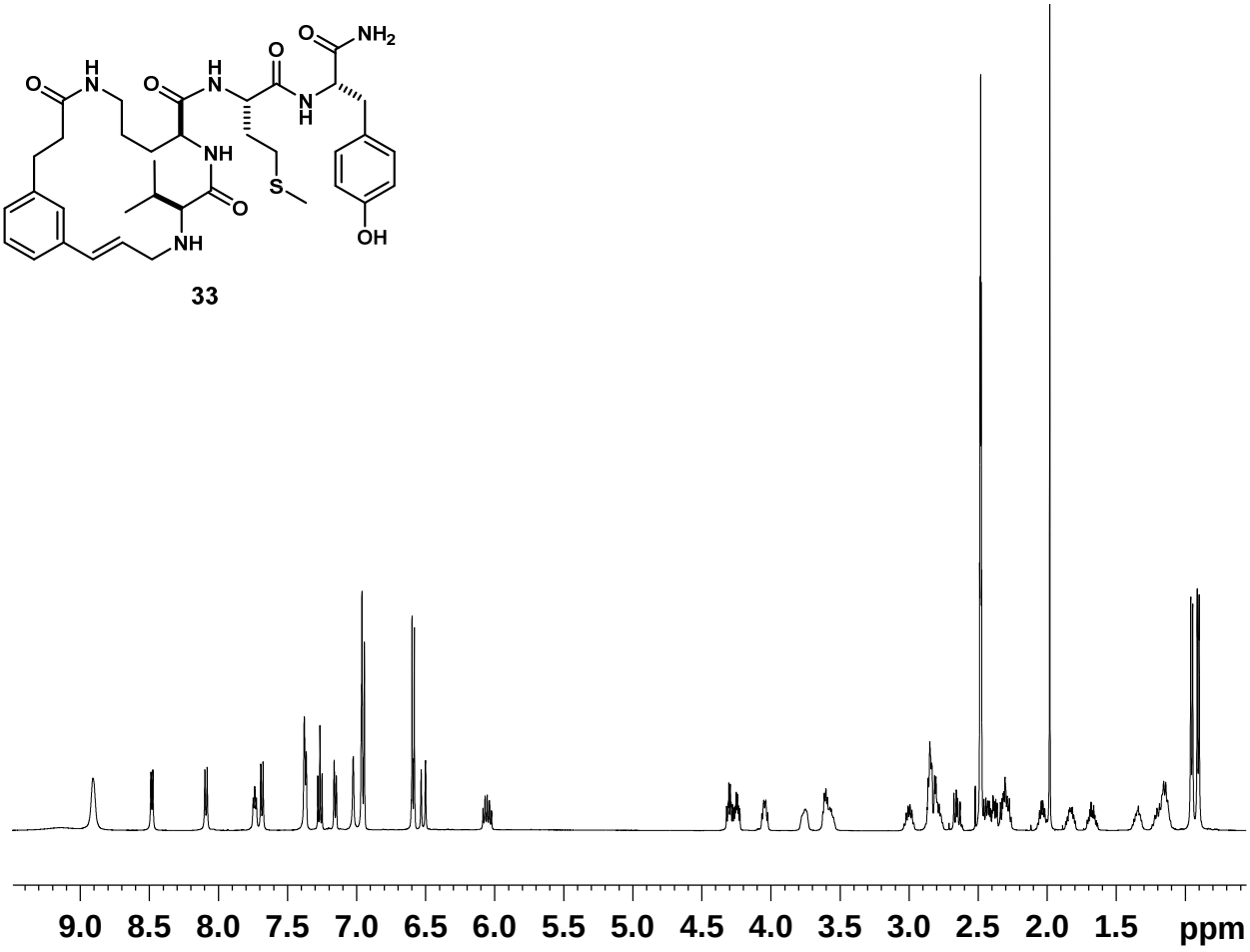




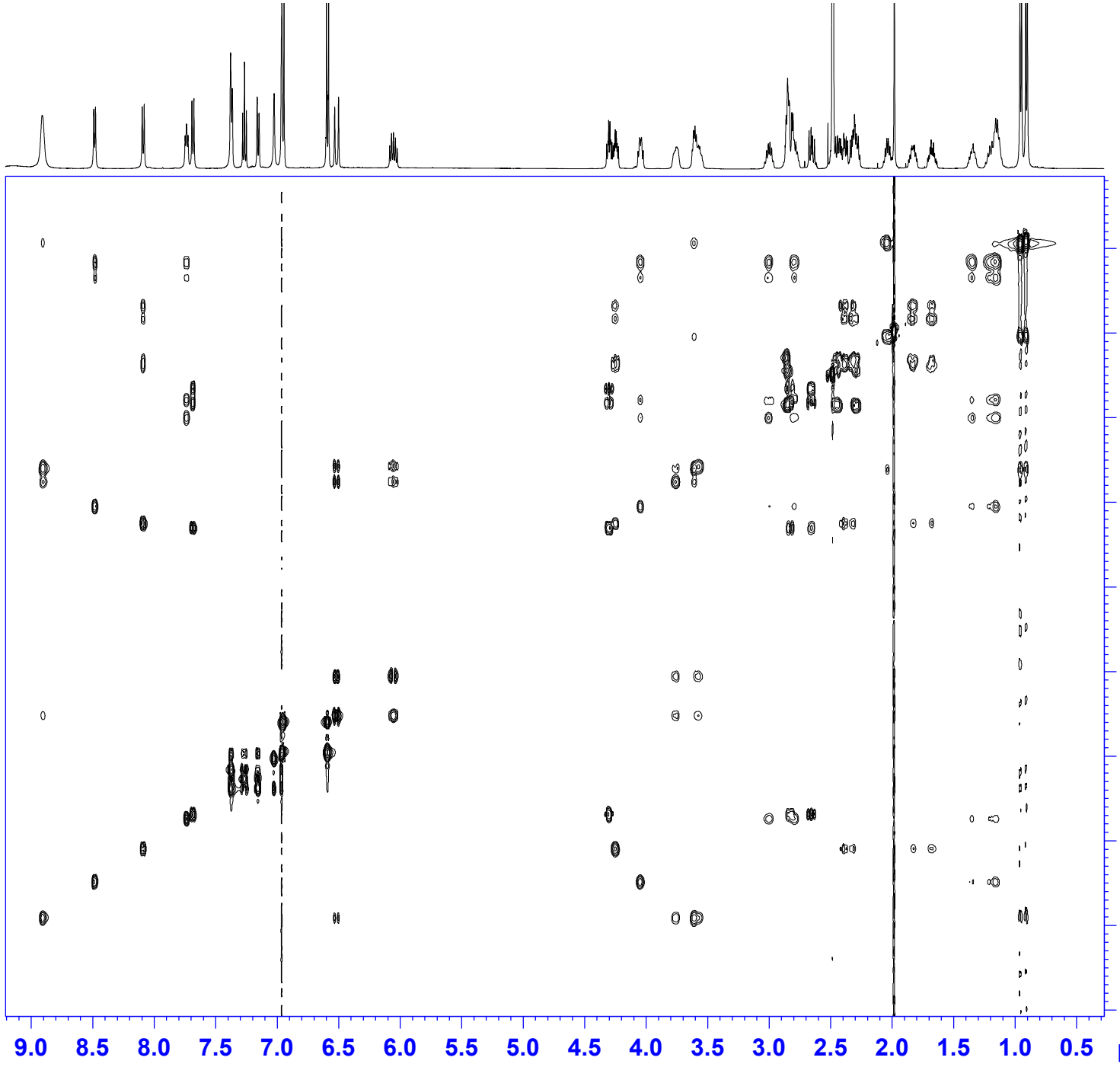

```
Current Data Parameters
NAME      KL-5-156C_AV600
EXPNO                   4
PROCNO                  1

F1 - Acquisition parameters
TD                    512
SFO1           150.9156 MHz
FIDRES        56.003849 Hz
SW             190.000 ppm
FnMODE                 QF

F2 - Processing parameters
SI                   4096
SF          600.1300066 MHz
WDW                 QSINE
SSB       0
LB        0 Hz
GB        0
PC                   1.40

F1 - Processing parameters
SI                   4096
MC2                    QF
SF          150.9029181 MHz
WDW                 USER
SSB                    3
LB        0 Hz
GB        0
```

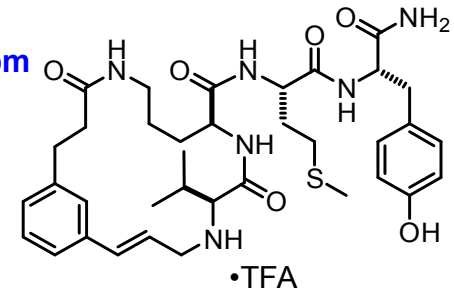
Cyclic-Val-Orn-Met-Try (33):

33

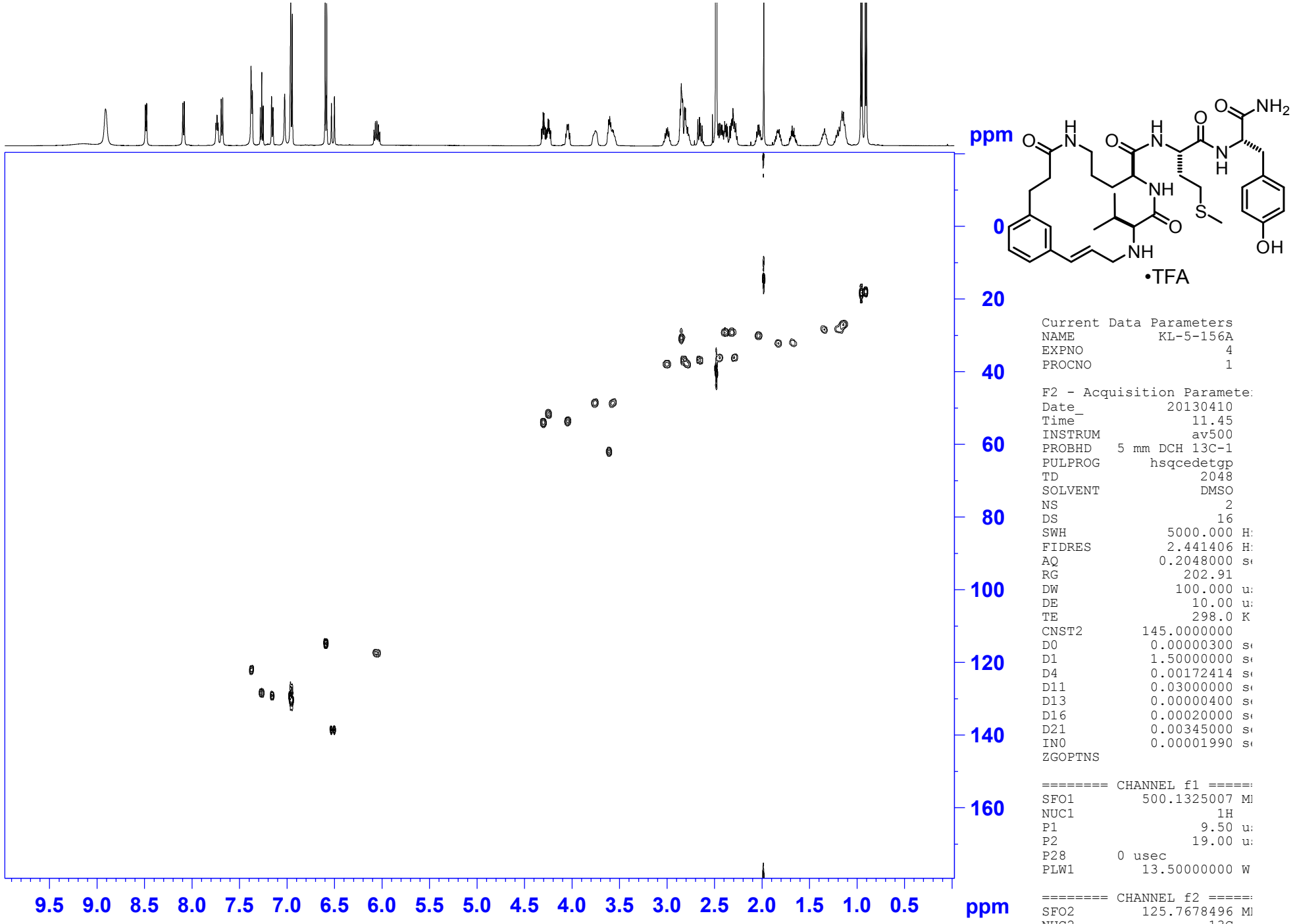



```
Current Data Parameters
NAME          KL-5-156A
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130410
Time              11.40
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG                 72.5
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1        13.50000000 W

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

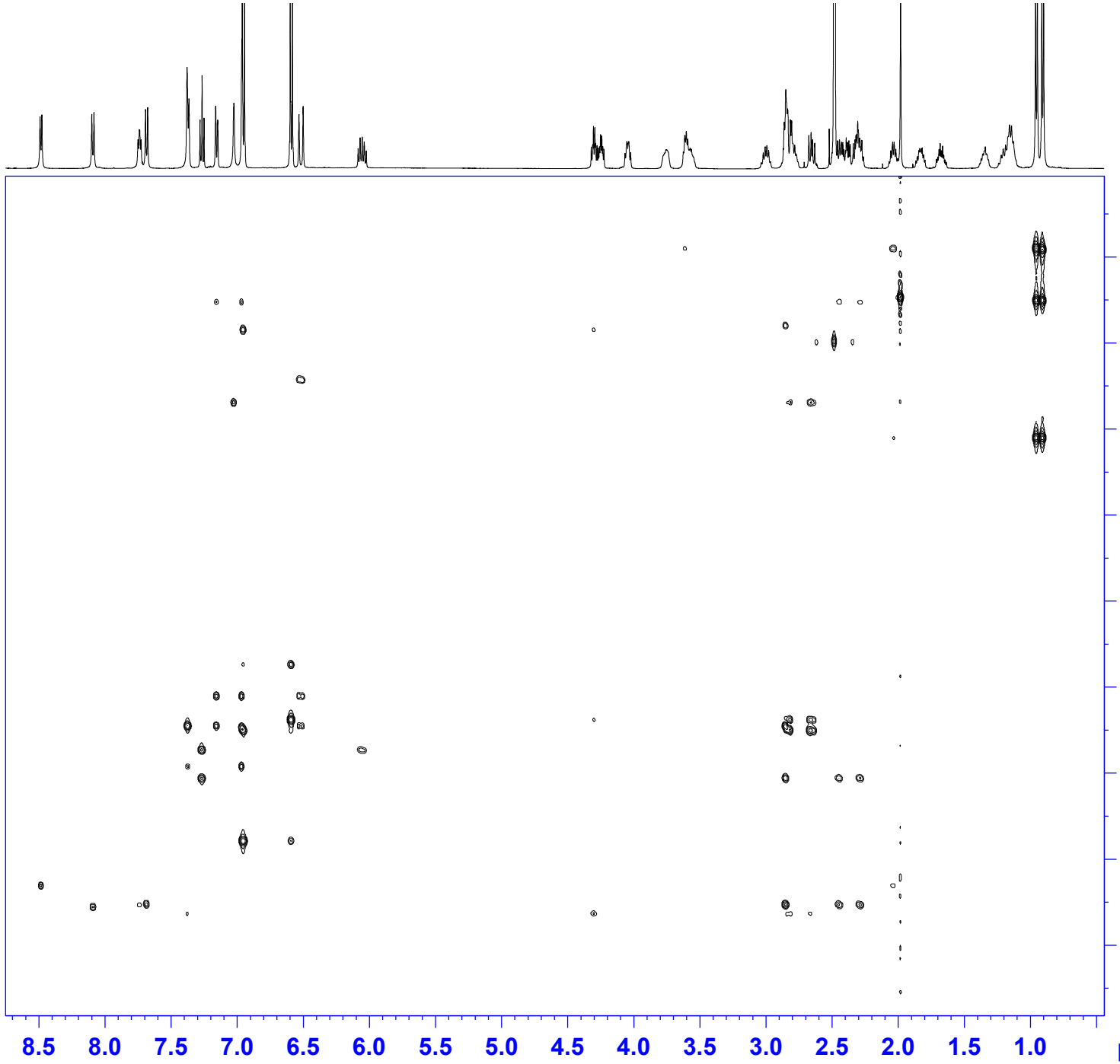


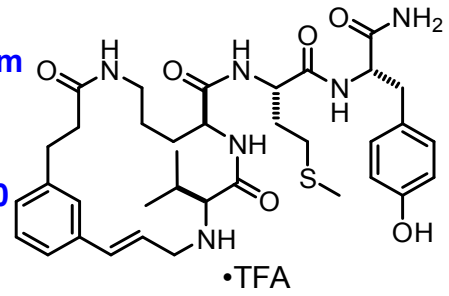



```
Current Data Parameters
NAME          KL-5-156A
EXPNO                 6
PROCNO                1

F2 - Acquisition Parameter
Date_          20130410
Time_             12.16
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG     mlevetgp.js
TD                2048
SOLVENT           DMSO
NS                   2
DS                   8
SWH           6009.615 H
FIDRES        2.934382 H
AQ            0.1703936 s
RG                37.94
DW                83.200 u
DE                10.00 u
TE                298.0 K
D0            0.00000300 s
D1            2.00000000 s
D9            0.06000000 s
D11           0.03000000 s
D12           0.00002000 s
D16           0.00020000 s
IN0           0.00016660 s
L1                   24

======== CHANNEL f1 =====
SFO1        500.1330008 M
NUC1                1H
P1                9.50 u
P2               19.00 u
P5               26.68 u
P6               40.00 u
P7               80.00 u
P17            2500.00 u
PLW1        13.50000000 W
PLW10        0.84375000 W

====== GRADIENT CHANNEL =
GPNAM[1]       SINE.100
GPNAM[2]       SINE.100
GPZ1              30.00 %
```



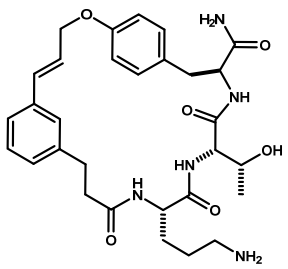

```
Current Data Parameters
NAME          KL-5-156A
EXPNO                 4
PROCNO                1

F2 - Acquisition Paramete
Date_          20130410
Time              11.45
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      hsqcedetgp
TD                2048
SOLVENT           DMSO
NS                   2
DS                  16
SWH           5000.000 H
FIDRES        2.441406 H
AQ            0.2048000 s
RG              202.91
DW              100.000 u
DE                10.00 u
TE                298.0 K
CNST2       145.0000000
D0           0.00000300 s
D1           1.50000000 s
D4           0.00172414 s
D11          0.03000000 s
D13          0.00000400 s
D16          0.00020000 s
D21          0.00345000 s
IN0          0.00001990 s
ZGOPTNS

======== CHANNEL f1 =====
SFO1        500.1325007 M
NUC1               1H
P1                9.50 u
P2               19.00 u
P28      0 usec
PLW1       13.50000000 W

======== CHANNEL f2 =====
SFO2        125.7678496 M
NUC2               13C
CPDPRG[2          garp
P3                9.63 u
P4               19.26 u
```

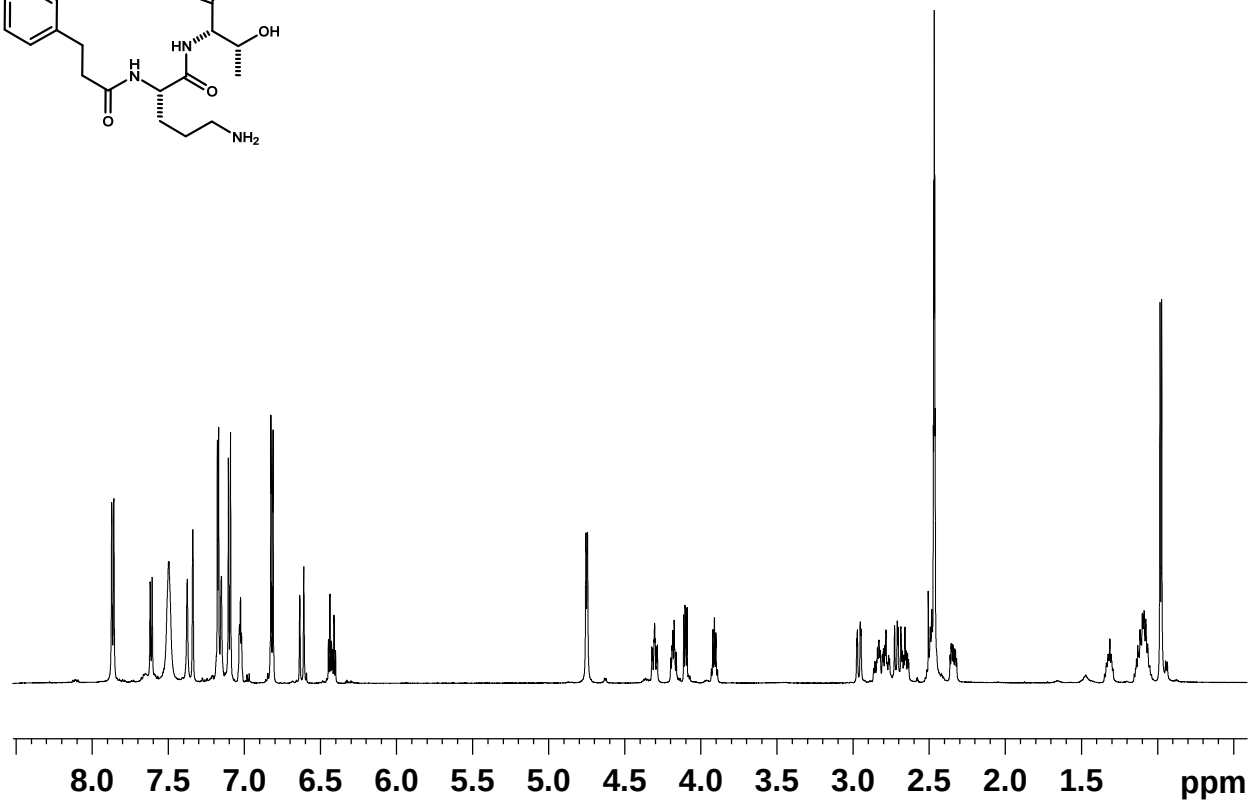




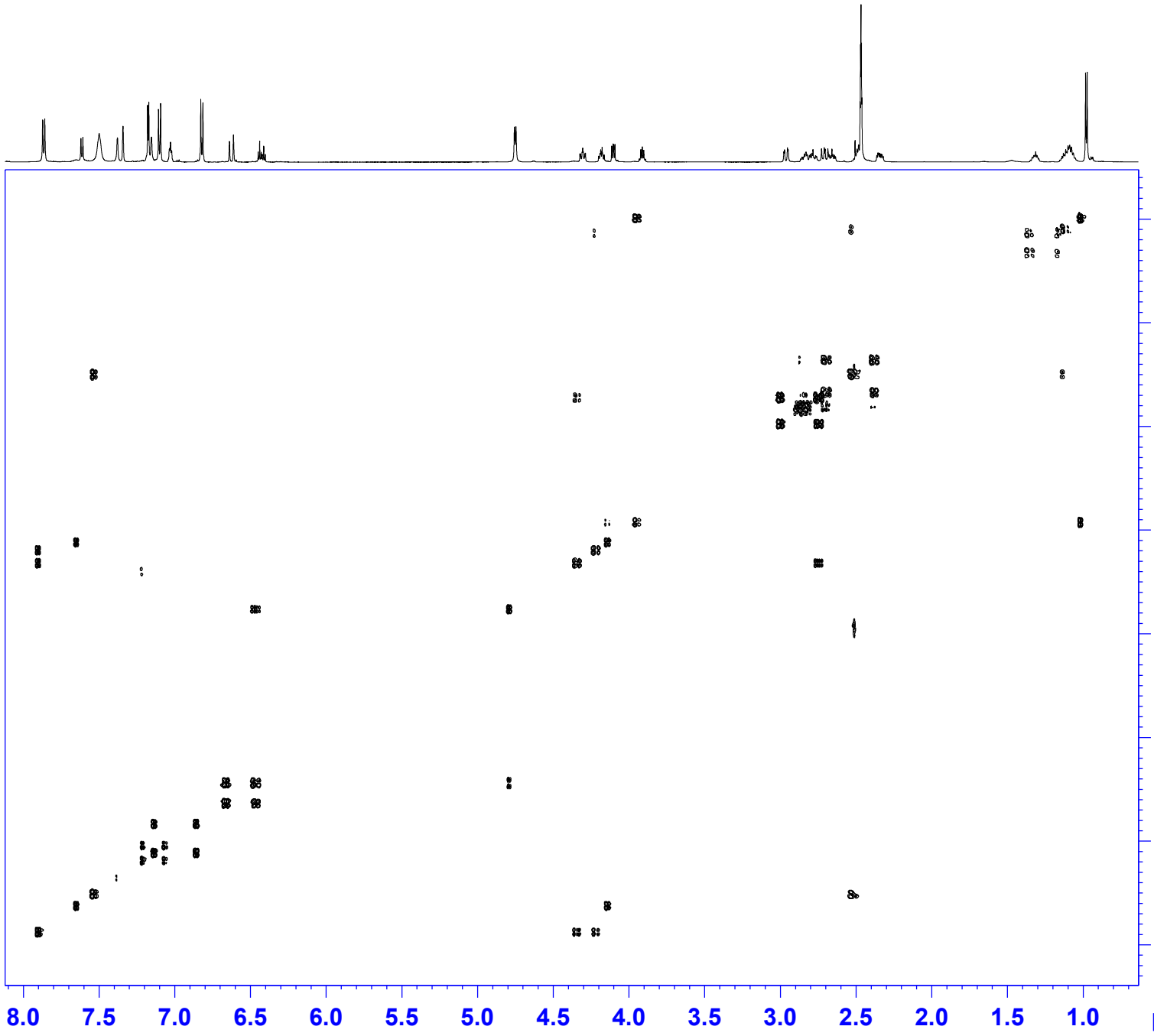

```
Current Data Parameters
NAME          KL-5-156A
EXPNO                 5
PROCNO                1

F2 - Acquisition Parameter
Date_          20130410
Time               12.00
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG    hmbcgpl2ndqf
TD                 2048
SOLVENT            DMSO
NS                    2
DS                   16
SWH            6009.615 H
FIDRES         2.934382 H
AQ             0.1703936 s
RG                202.91
DW                83.200 u
DE                10.00 u
TE                298.0 K
CNST6         120.0000000
CNST7         160.0000000
CNST13          7.0000000
D0             0.00000300 s
D1             1.50000000 s
D6             0.07142857 s
D16            0.00020000 s
IN0            0.00001990 s

======== CHANNEL f1 =====
SFO1         500.1330008 M
NUC1                1H
P1                9.50 u
P2               19.00 u
PLW1         13.50000000 W

======== CHANNEL f2 =====
SFO2         125.7703648 M
NUC2               13C
P3                9.63 u
PLW2         23.01399994 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
```

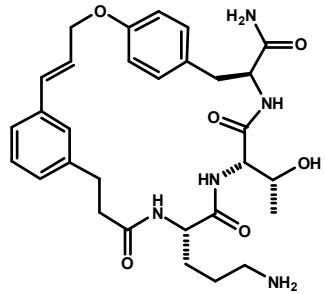
Cyclic-Orn-Thr-Try (35):



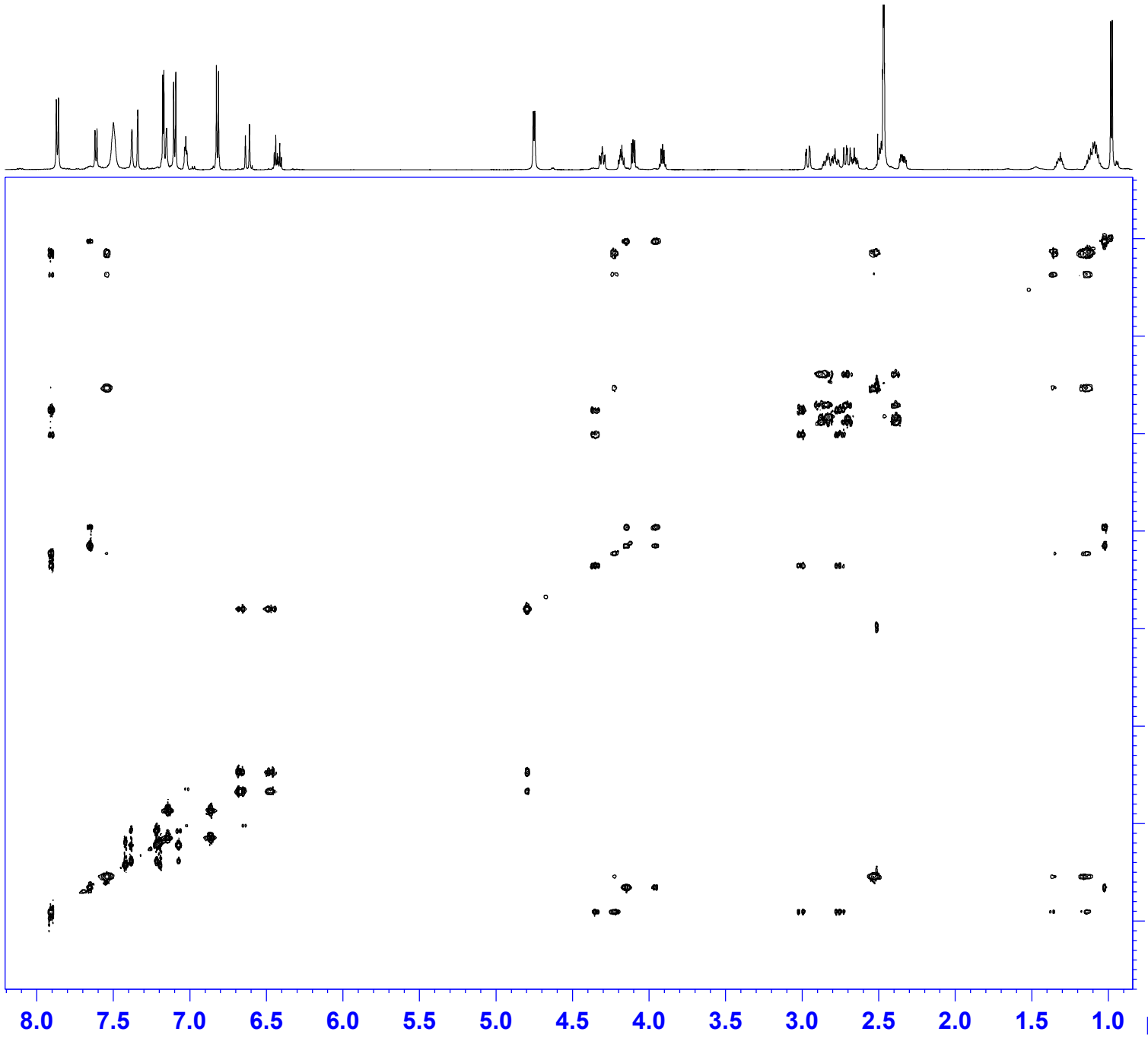


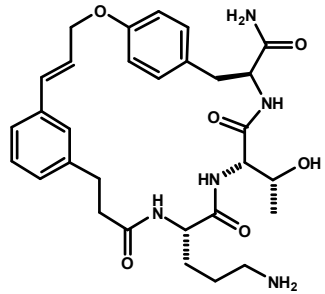

```
Current Data Parameters
NAME         TR4-169A_2
EXPNO                 4
PROCNO                1

F2 - Acquisition Parameters
Date_          20130428
Time              18.14
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG           zgpr
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH            6009.615 Hz
FIDRES        0.091699 Hz
AQ            5.4525952 sec
RG                  64
DW               83.200 usec
DE                6.50 usec
TE               298.0 K
D1           2.00000000 sec
D12          0.00002000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1                9.70 usec
PL1              -2.00 dB
PL9               52.24 dB
PL1W        39.81071854 W
PL9W         0.00014997 W
SFO1        600.1321531 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



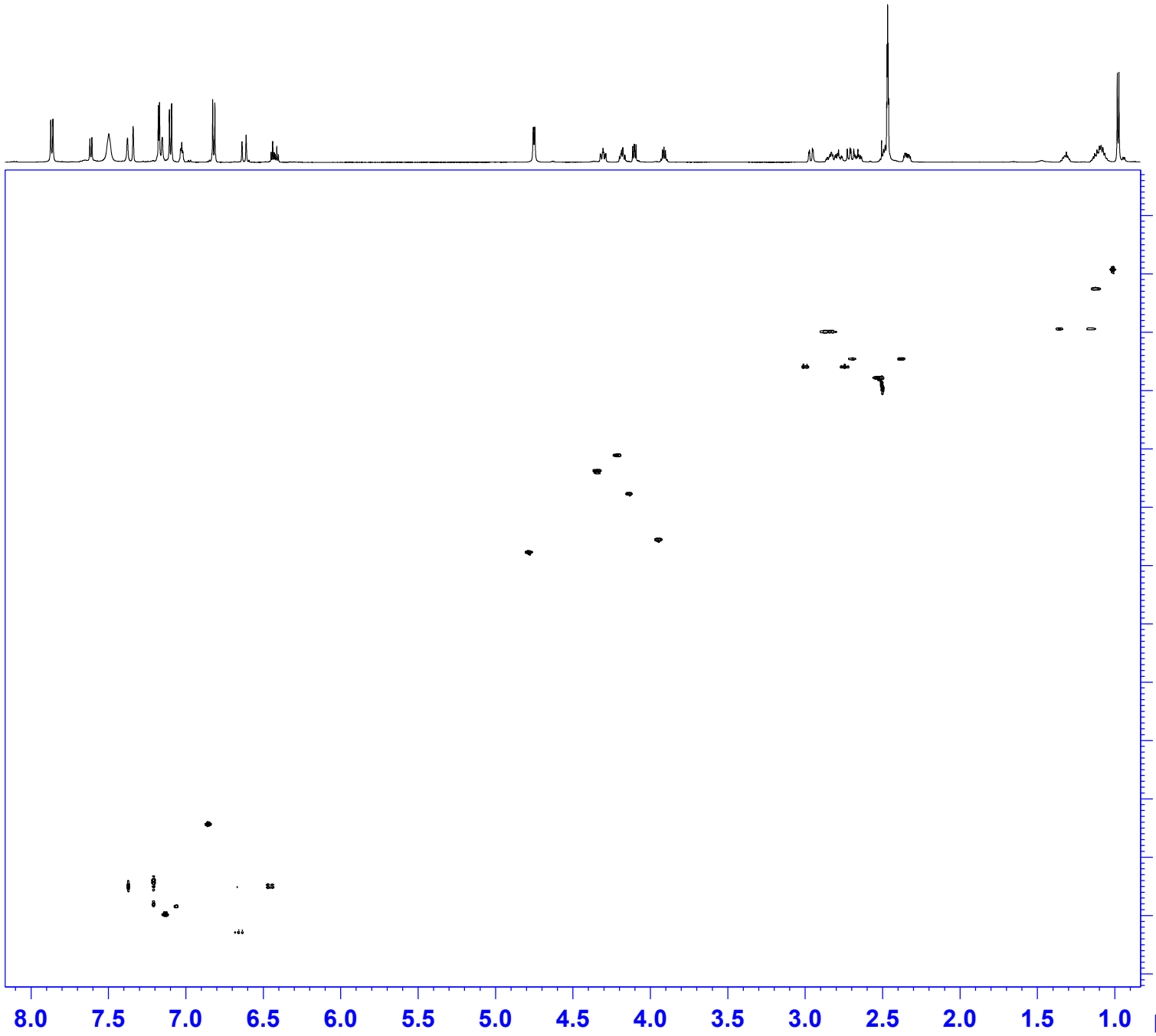


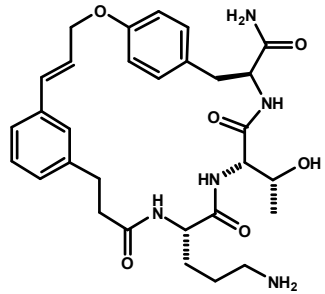

```
Current Data Parameters
NAME          TR4-169A_2
EXPNO                  5
PROCNO                 1

F1 - Acquisition parameters
TD                   512
SFO1          600.133 MHz
FIDRES       11.737530 Hz
SW            10.014 ppm
FnMODE      States-TPPI

F2 - Processing parameters
SI                  4096
SF          600.1300014 MHz
WDW               QSINE
SSB                    2
LB        0 Hz
GB        0
PC                  1.00

F1 - Processing parameters
SI                  4096
MC2         States-TPPI
SF          600.1300177 MHz
WDW                TRAP
SSB                    2
LB        0 Hz
GB        0
```



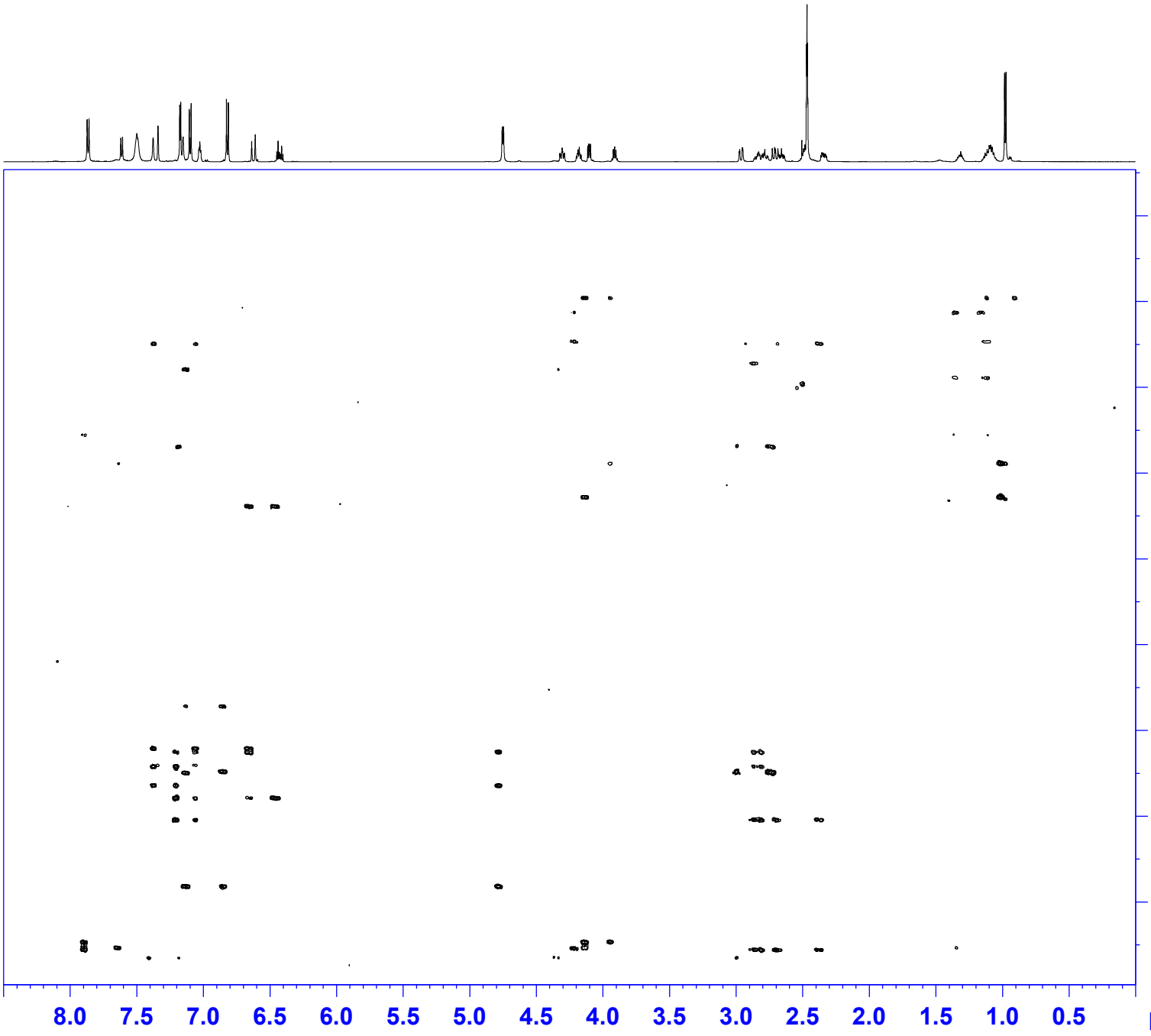


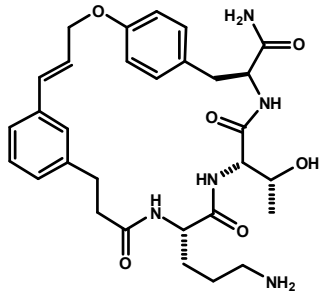

```
Current Data Parameters
NAME          TR4-169A_2
EXPNO                  6
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130428
Time              18.35
INSTRUM           av600
PROBHD    5 mm TBI5
PULPROG       mlevesgpph
TD                2048
SOLVENT            DMSO
NS                    2
DS                   16
SWH            6009.615 Hz
FIDRES         2.934382 Hz
AQ             0.1703936 sec
RG                812.7
DW                83.200 usec
DE                 6.50 usec
TE                298.0 K
d0           -0.00002618 sec
D1            1.00000000 sec
D9            0.06000000 sec
d12           0.00002000 sec
D16           0.00020000 sec
FACTOR1               4
in0       0 sec
l1                   24
SCALEF                6
ST1CNT              128
TAU           0.00006668 sec
d0orig       -0.00002618 sec
ph1loop               0
t1loop                0
SFO1         600.1330006 MHz
NUC1                 1H
P1                 9.70 usec
p2                19.40 usec
p5                26.68 usec
P6                40.00 usec
p7                80.00 usec
P12             3000.00 usec
P17             2500.00 usec
PLW0        -1.00000000 W
PLW1        -1.00000000 W
PLW10       -1.00000000 W
SPNAM[1]   Squa100.1000
SPOAL1            1.000
SPOFFS1       -1175.04 Hz
SPW1     0 W
GPNAM[1]        SINE.100
GPNAM[2]        SINE.100
GPZ1              31.00 %
GPZ2              11.00 %
P16             1000.00 usec

F1 - Acquisition parameters
TD                 256
SFO1           600.133 MHz
FIDRES        23.475060 Hz
SW               10.014 ppm
FnMODE       States-TPPI

F2 - Processing parameters
SI                4096
SF           600.1300000 MHz
WDW               QSINE
SSB                 2.5
LB        0 Hz
GB        0
```






```
Current Data Parameters
NAME          TR4-169A_2
EXPNO                  7
PROCNO                 1

F1 - Acquisition parameters
TD                   512
SFO1          150.9134 MHz
FIDRES         47.160427 Hz
SW               160.000 ppm
FnMODE    Echo-Antiecho

F2 - Processing parameters
SI                  4096
SF          600.1300051 MHz
WDW                   EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40

F1 - Processing parameters
SI                  4096
MC2        echo-antiecho
SF           150.9029231 MHz
WDW                 SINE
SSB                    2
LB        0 Hz
GB        0
```



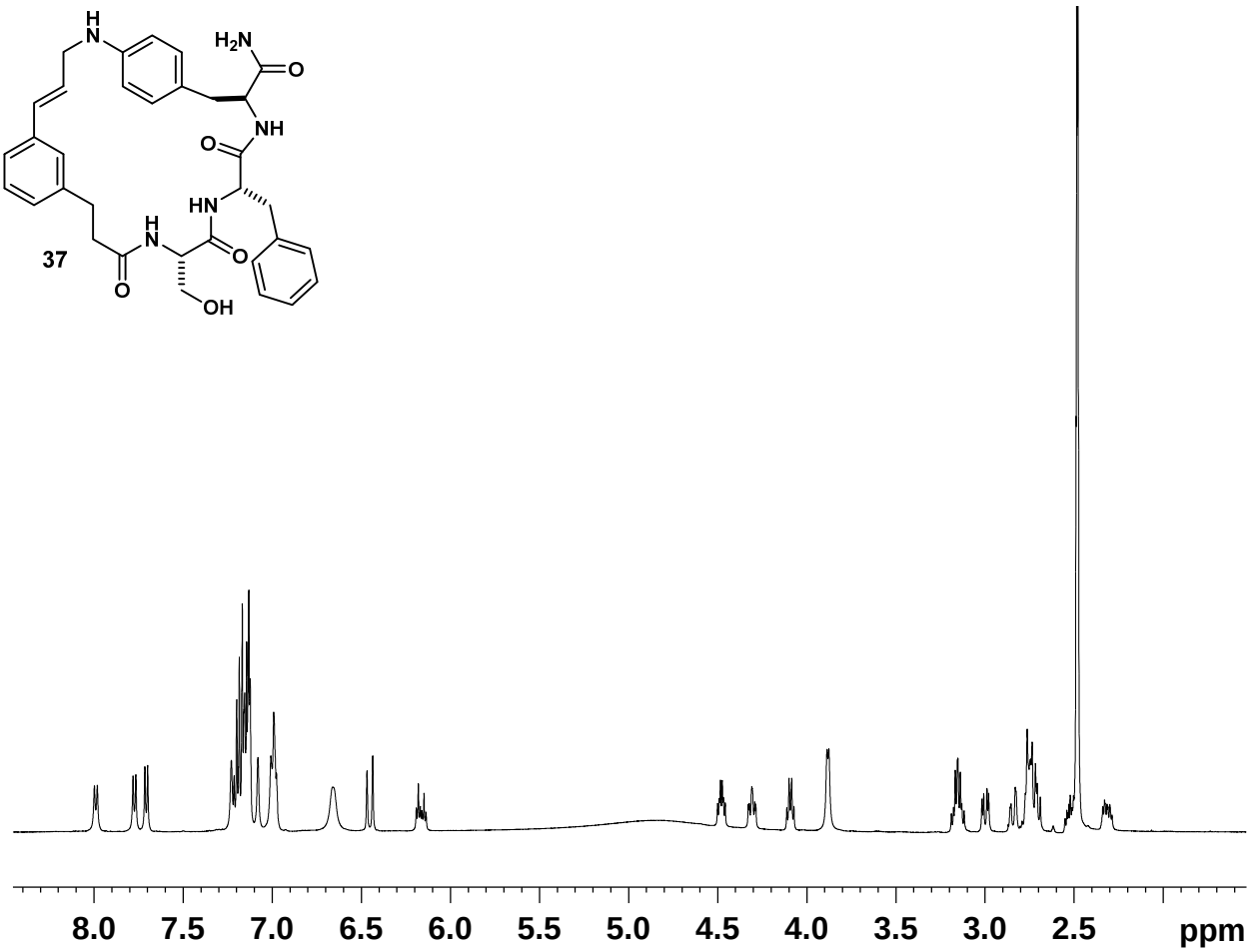



```
Current Data Parameters
NAME          TR4-169A_2
EXPNO                  8
PROCNO                 1

F1 - Acquisition parameters
TD                   512
SFO1          150.9156 MHz
FIDRES         56.003849 Hz
SW              190.000 ppm
FnMODE                QF

F2 - Processing parameters
SI                  4096
SF          600.1300066 MHz
WDW                 QSINE
SSB       0
LB        0 Hz
GB        0
PC                  1.40

F1 - Processing parameters
SI                  4096
MC2                   QF
SF          150.9029181 MHz
WDW                 QSINE
SSB                    1
LB        0 Hz
GB        0
```

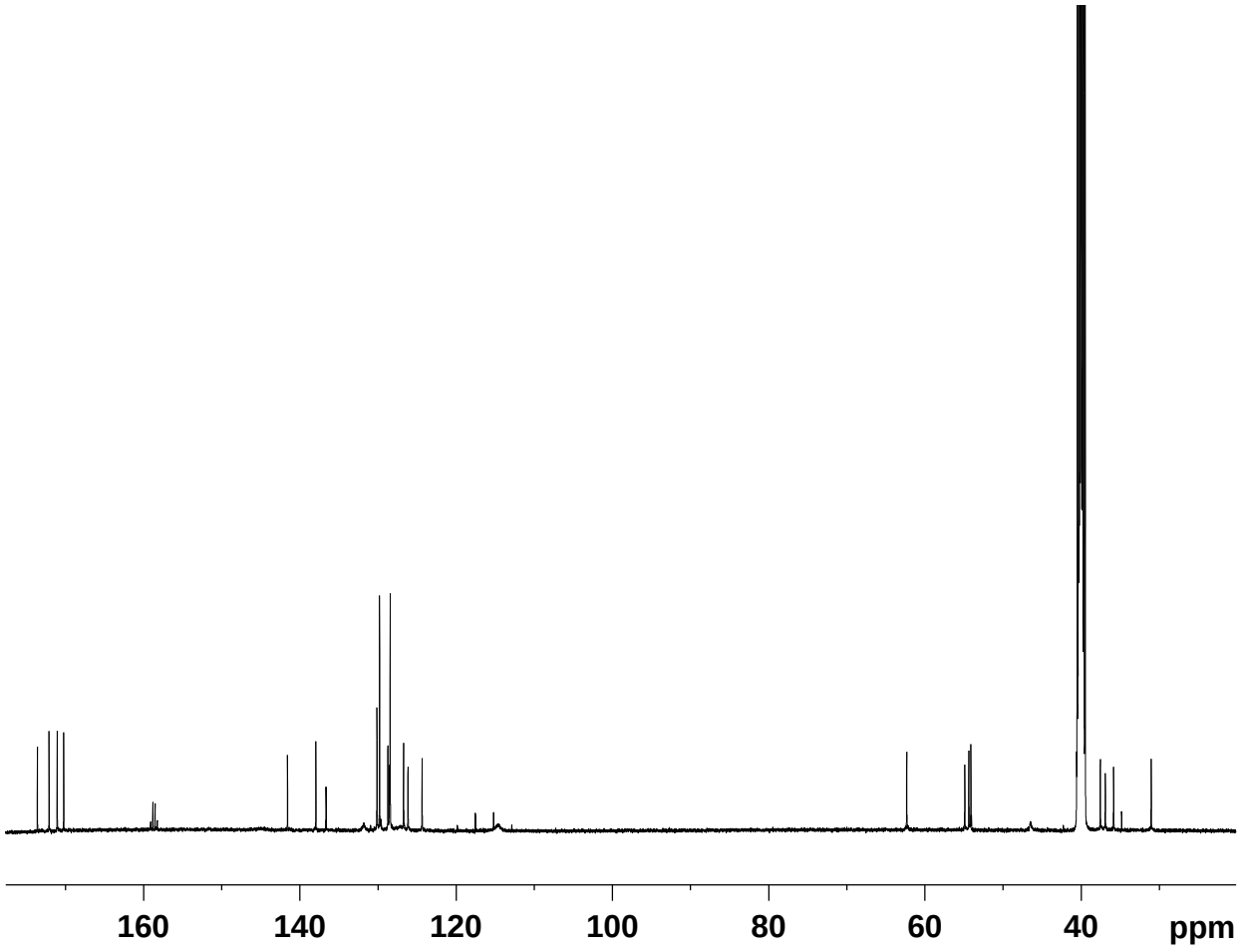
Cyclic-Ser-Phe-Phe(4-NH_2) (37):

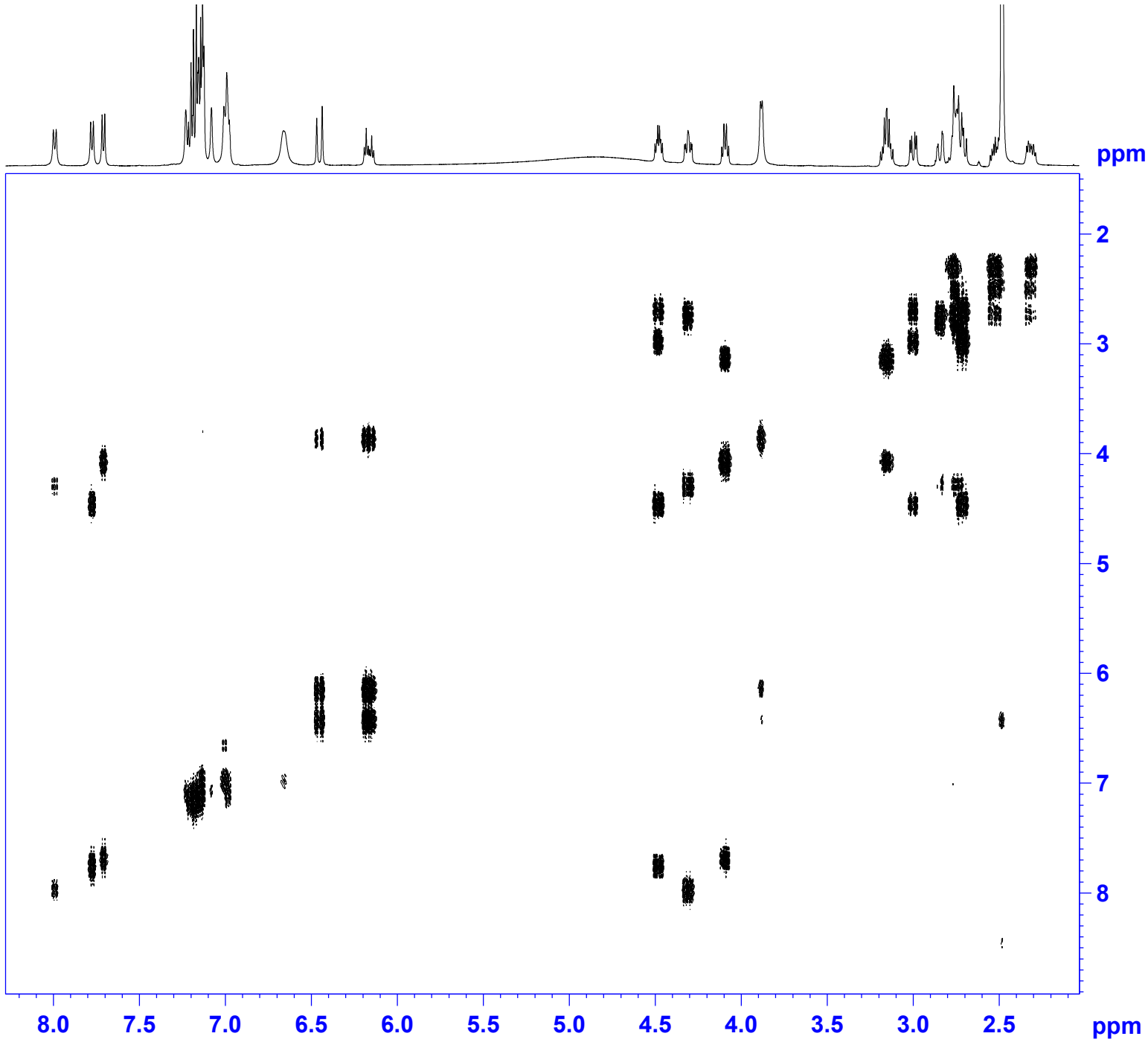
37

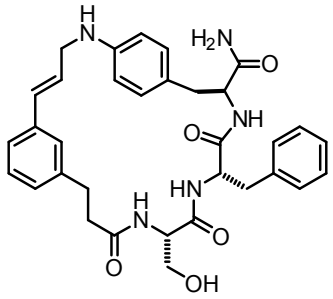
```
Current Data Parameters
NAME            KL-5-10
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20120815
Time              12.06
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES         0.152588 Hz
AQ            3.2767999 sec
RG               202.91
DW               50.000 usec
DE               10.00 usec
TE                298.0 K
D1           2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                 1H
P1                10.00 usec
PLW1        13.50000000 W
SFO1        500.1330008 MHz

F2 - Processing parameters
SI                65536
SF          500.1300146 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```



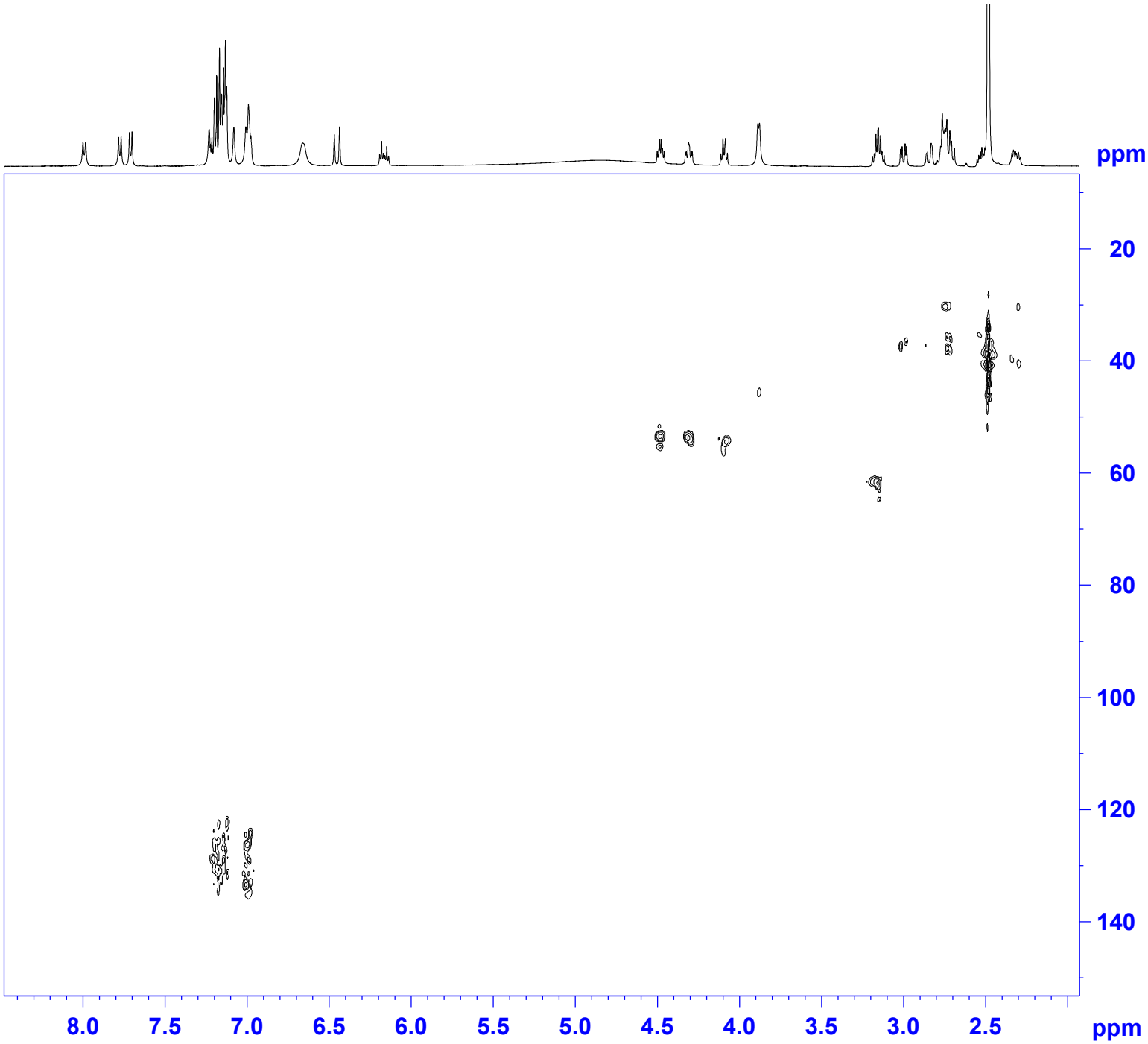

```
Current Data Parameters
NAME            KL-5-10
EXPNO                12
PROCNO                1

F2 - Processing parameters
SI               131072
SF          125.7577892 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

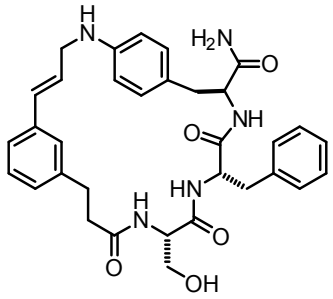




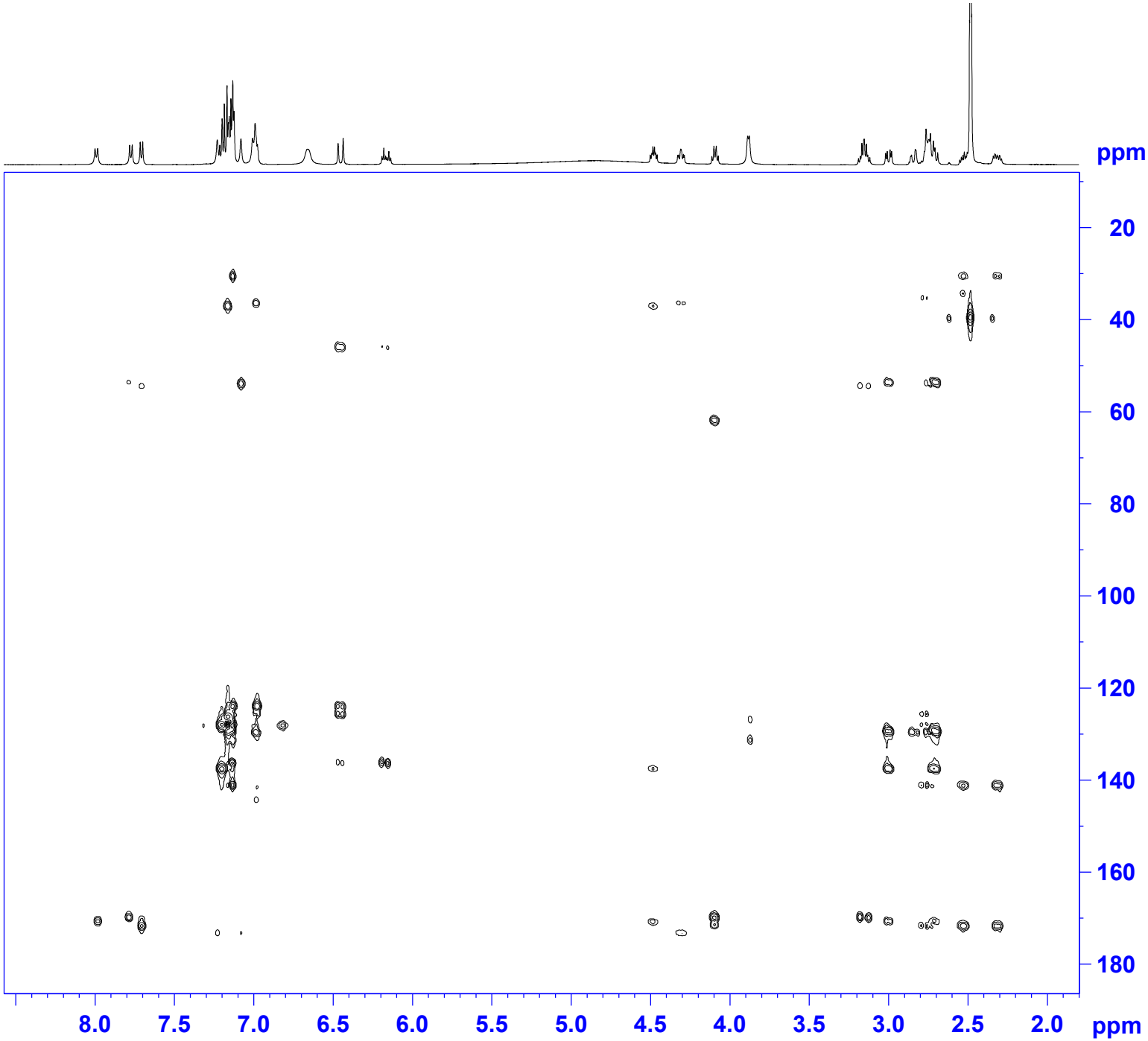


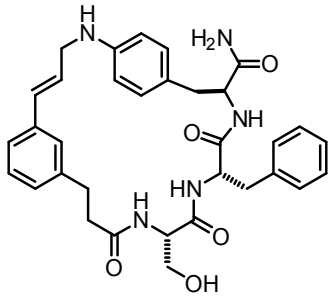

```
Current Data Parameters
NAME                  KL-5-10
EXPNO                       3
PROCNO                      1

F1 - Acquisition parameters
TD                        256
SFO1               500.1328 MHz
FIDRES           19.536423 Hz
SW                  10.000 ppm
FnMODE          States-TPPI

F2 - Processing parameters
SI                       2048
SF              500.1300135 MHz
WDW                      SINE
SSB                         1
LB          0 Hz
GB          0
PC                       1.00

F1 - Processing parameters
SI                       2048
MC2             States-TPPI
SF              500.1300216 MHz
WDW                      SINE
SSB                         1
LB          0 Hz
GB          0
```





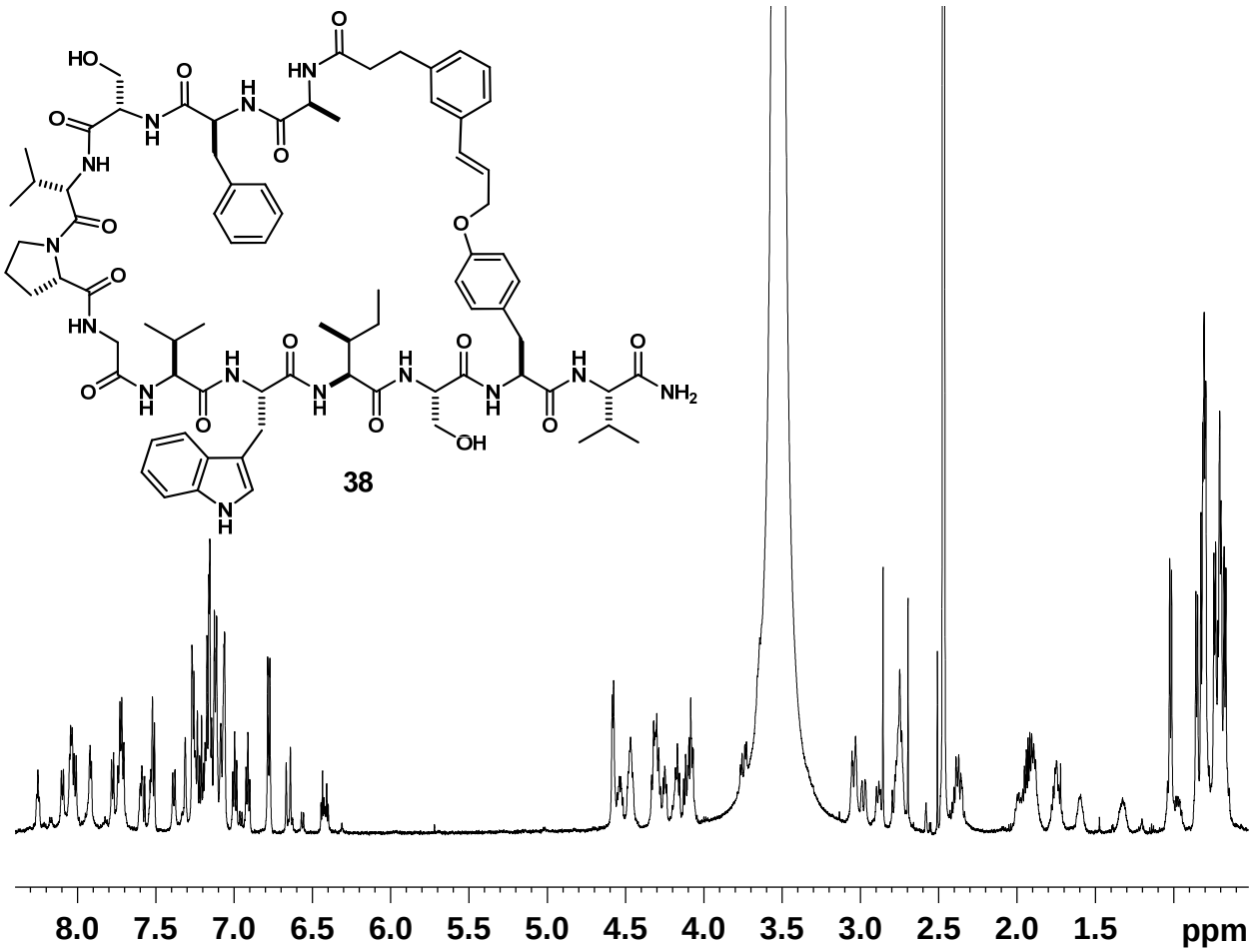

```
Current Data Parameters
NAME                  KL-5-10
EXPNO                       4
PROCNO                      1

F1 - Acquisition parameters
TD                        256
SFO1               125.7678 MHz
FIDRES              98.255890 Hz
SW                 200.000 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                       2048
SF              500.1300135 MHz
WDW                     QSINE
SSB                         2
LB          0 Hz
GB          0
PC                       1.00

F1 - Processing parameters
SI                       2048
MC2           echo-antiecho
SF              125.7578472 MHz
WDW                      TRAP
SSB                         2
LB          0 Hz
GB          0
```



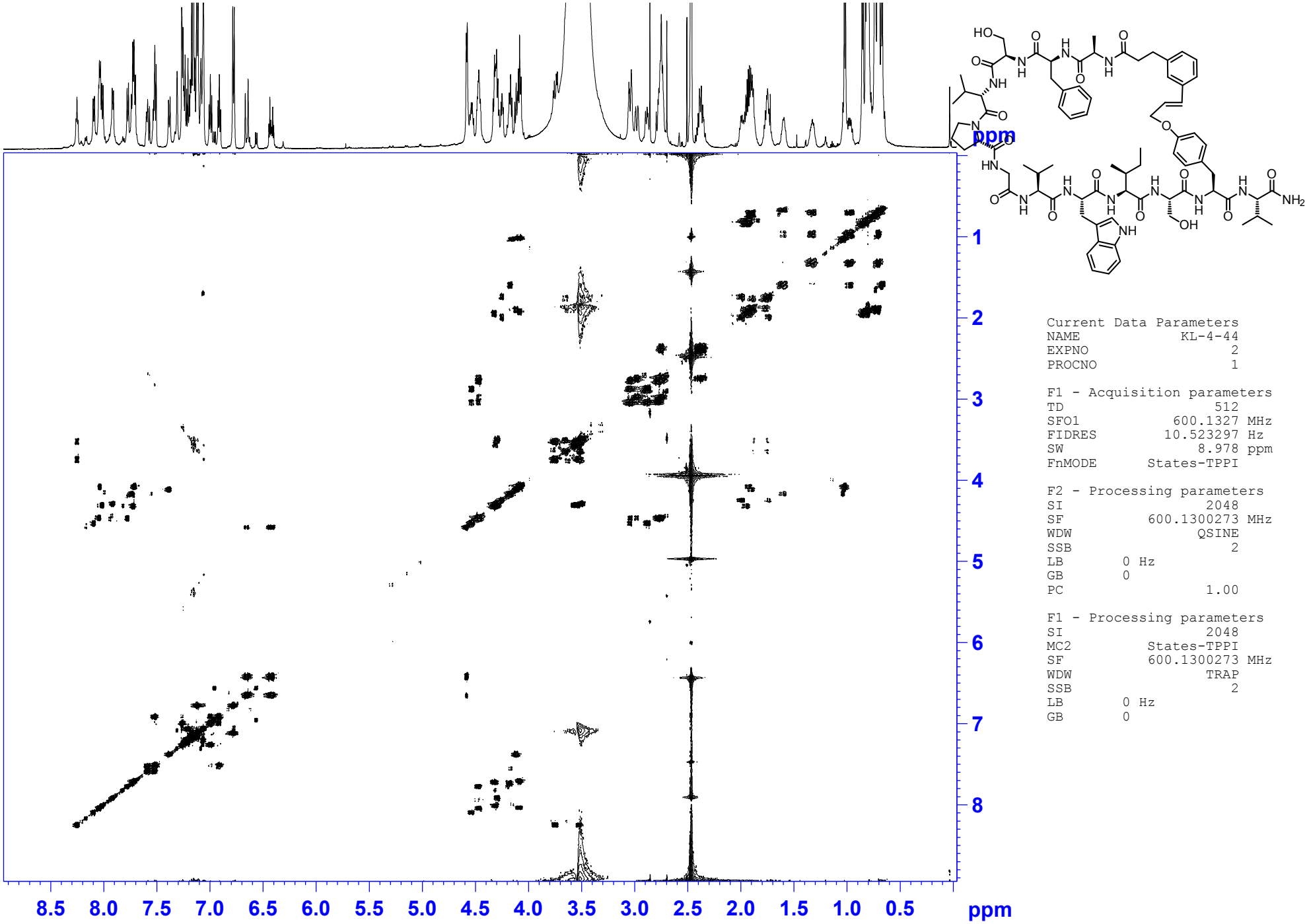



```
Current Data Parameters
NAME                  KL-5-10
EXPNO                       9
PROCNO                      1

F2 - Acquisition Parameter
Date_                20120816
Time                    19.26
INSTRUM                 av500
PROBHD    5 mm DCH 13C-1
PULPROG      hmbcgpl2ndqf
TD                       2048
SOLVENT                  DMSO
NS                          4
DS                         16
SWH                  6009.615 H
FIDRES               2.934382 H
AQ                  0.1703936 s
RG                      202.91
DW                      83.200 u
DE                      10.00 u
TE                      298.0 K
CNST6              120.0000000
CNST7              160.0000000
CNST13               7.0000000
d0                   0.00000300 s
D1                   1.50000000 s
d6                   0.07142857 s
D16                  0.00020000 s
DELTA1               0.00296667 s
DELTA2               0.00192500 s
DELTA3               0.07022458 s
in0          0 sec
ST1CNT                     256
d0orig               0.00000300 s
ph1loop                      0
t1loop                       0
SFO1               500.1330008 M
NUC1                        1H
P1                      10.00 u
p2                      20.00 u
PLW1               13.50000000 W
SFO2               125.7703648 M
NUC2                       13C
P3                       9.63 u
PLW2               23.01399994 W
GPNAM[1]            SMSQ10.100
```

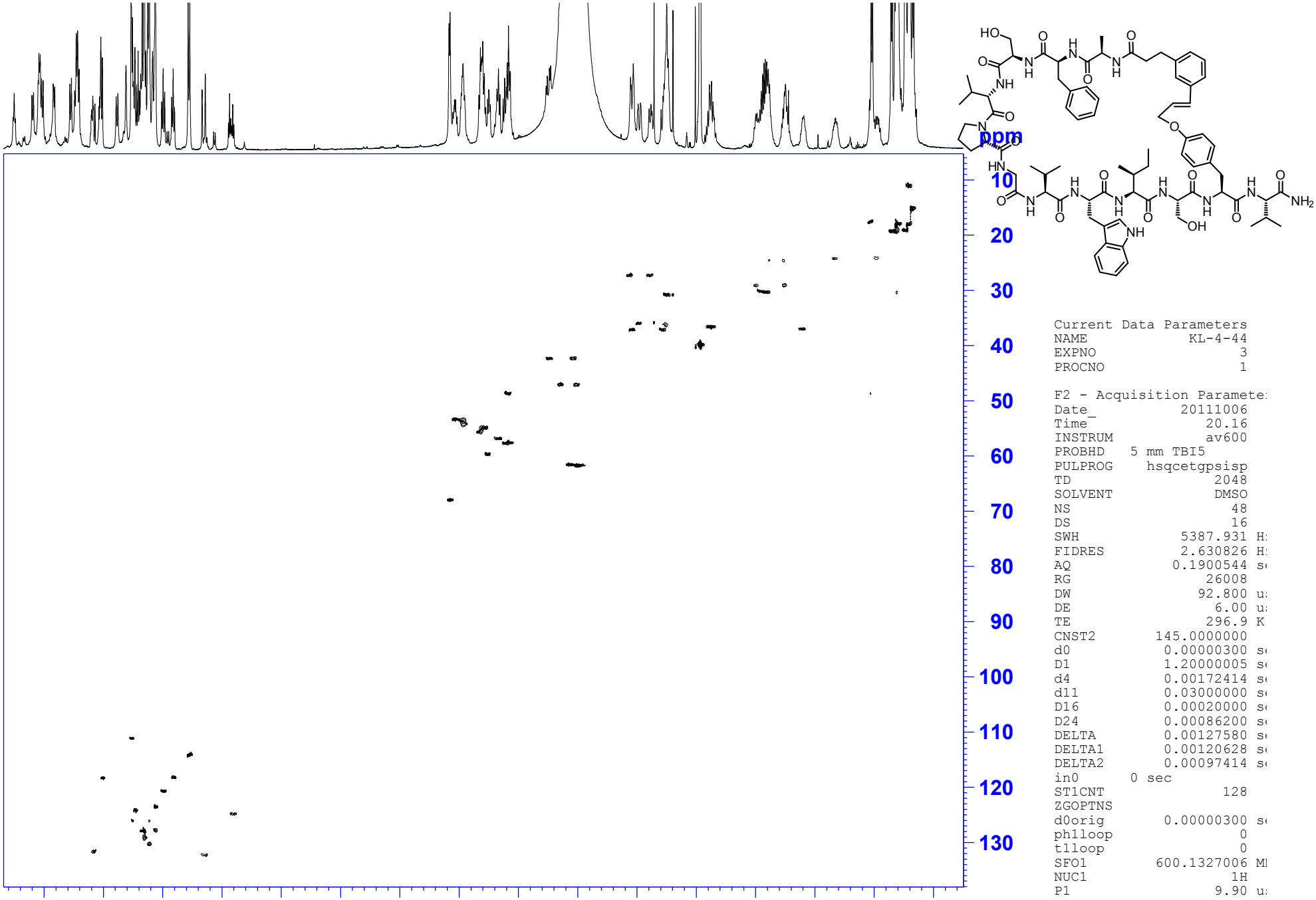
Cyclic-Ala-Phe-Ser-Val-Pro-Gly-Val-Trp-Ile-Ser-Tyr-Val (38):



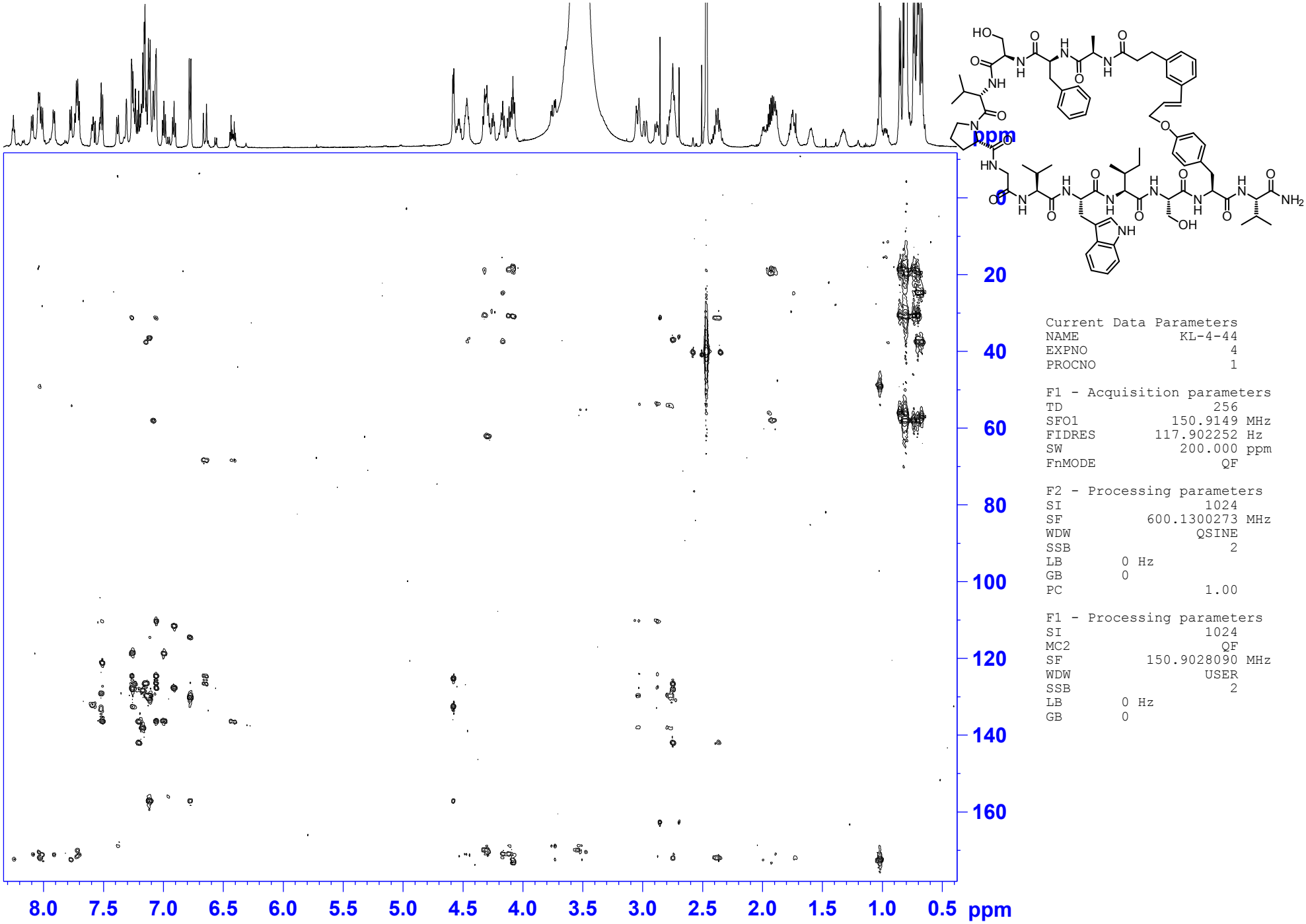

```
Current Data Parameters
NAME            KL-4-44
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20111006
Time              18.36
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG           zg30
TD               65536
SOLVENT           DMSO
NS                   8
DS                   0
SWH           12376.237 Hz
FIDRES         0.188846 Hz
AQ            2.6476543 sec
RG                 181
DW              40.400 usec
DE               6.50 usec
TE              295.8 K
D1           2.00000000 sec
TD0                  1

======== CHANNEL f1 ========
NUC1                1H
P1               9.10 usec
PL1             -2.00 dB
PL1W        39.81071854 W
SFO1       600.1336008 MHz

F2 - Processing parameters
SI                65536
SF          600.1300273 MHz
WDW                  EM
SSB      0
LB               0.30 Hz
GB       0
PC               1.00
```




```
Current Data Parameters
NAME                  KL-4-44
EXPNO                       2
PROCNO                      1

F1 - Acquisition parameters
TD                        512
SFO1               600.1327 MHz
FIDRES           10.523297 Hz
SW                    8.978 ppm
FnMODE          States-TPPI

F2 - Processing parameters
SI                       2048
SF              600.1300273 MHz
WDW                     QSINE
SSB                         2
LB          0 Hz
GB          0
PC                       1.00

F1 - Processing parameters
SI                       2048
MC2             States-TPPI
SF              600.1300273 MHz
WDW                      TRAP
SSB                         2
LB          0 Hz
GB          0
```



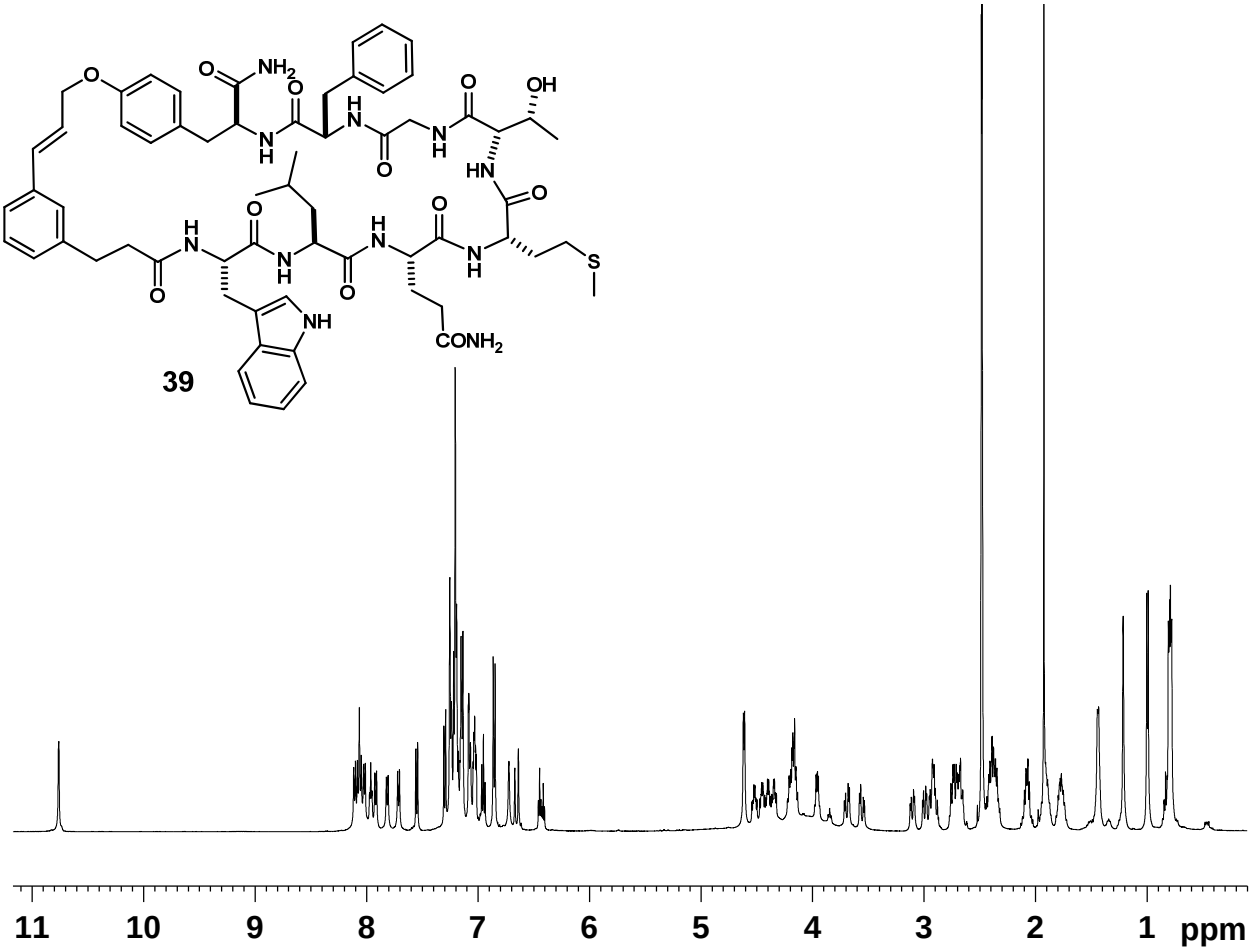

```
Current Data Parameters
NAME                  KL-4-44
EXPNO                       3
PROCNO                      1

F2 - Acquisition Paramete:
Date_              20111006
Time                  20.16
INSTRUM               av600
PROBHD    5 mm TBI5
PULPROG     hsqcetgpsisp
TD                     2048
SOLVENT                DMSO
NS                       48
DS                       16
SWH                5387.931 H:
FIDRES             2.630826 H:
AQ                 0.1900544 s
RG                     26008
DW                   92.800 u:
DE                    6.00 u:
TE                   296.9 K
CNST2          145.0000000
d0               0.00000300 s
D1               1.20000005 s
d4               0.00172414 s
d11              0.03000000 s
D16              0.00020000 s
D24              0.00086200 s
DELTA            0.00127580 s
DELTA1           0.00120628 s
DELTA2           0.00097414 s
in0        0 sec
ST1CNT                  128
ZGOPTNS
d0orig           0.00000300 s
ph1loop                  0
t1loop                   0
SFO1           600.1327006 M
NUC1                    1H
P1                    9.90 u:
p2                   19.80 u:
P28                1000.00 u:
PLW1           -1.00000000 W
SFO2           150.9133722 M
NUC2                   13C
CPDPRG[2               garp
```



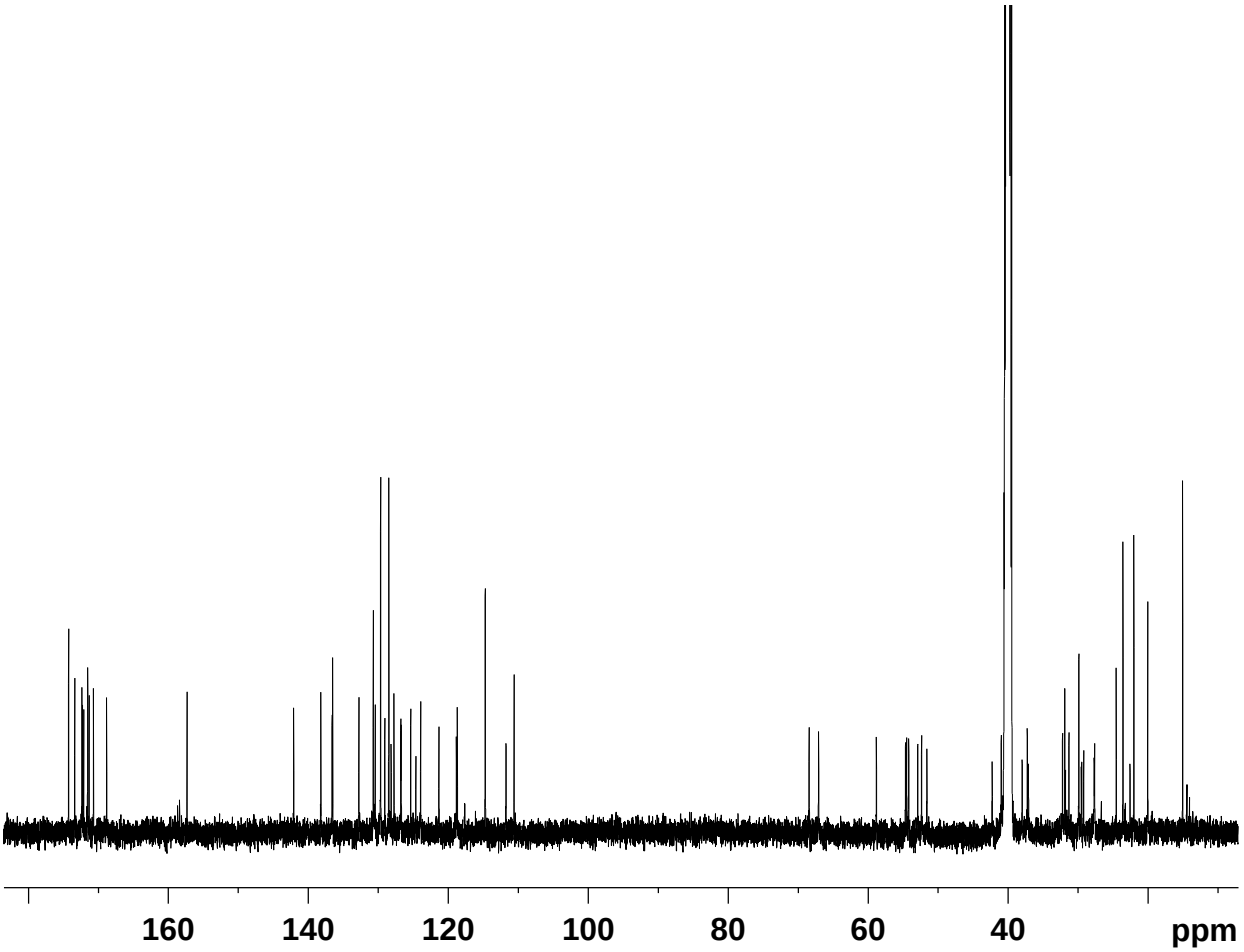

```
Current Data Parameters
NAME                  KL-4-44
EXPNO                       4
PROCNO                      1

F1 - Acquisition parameters
TD                        256
SFO1               150.9149 MHz
FIDRES             117.902252 Hz
SW                 200.000 ppm
FnMODE                     QF

F2 - Processing parameters
SI                        1024
SF              600.1300273 MHz
WDW                     QSINE
SSB                         2
LB              0 Hz
GB              0
PC                      1.00

F1 - Processing parameters
SI                        1024
MC2                         QF
SF              150.9028090 MHz
WDW                      USER
SSB                         2
LB              0 Hz
GB              0
```

Cyclic-Trp-Leu-Gln-Met-Thr-Gly-Phe-Tyr (39):

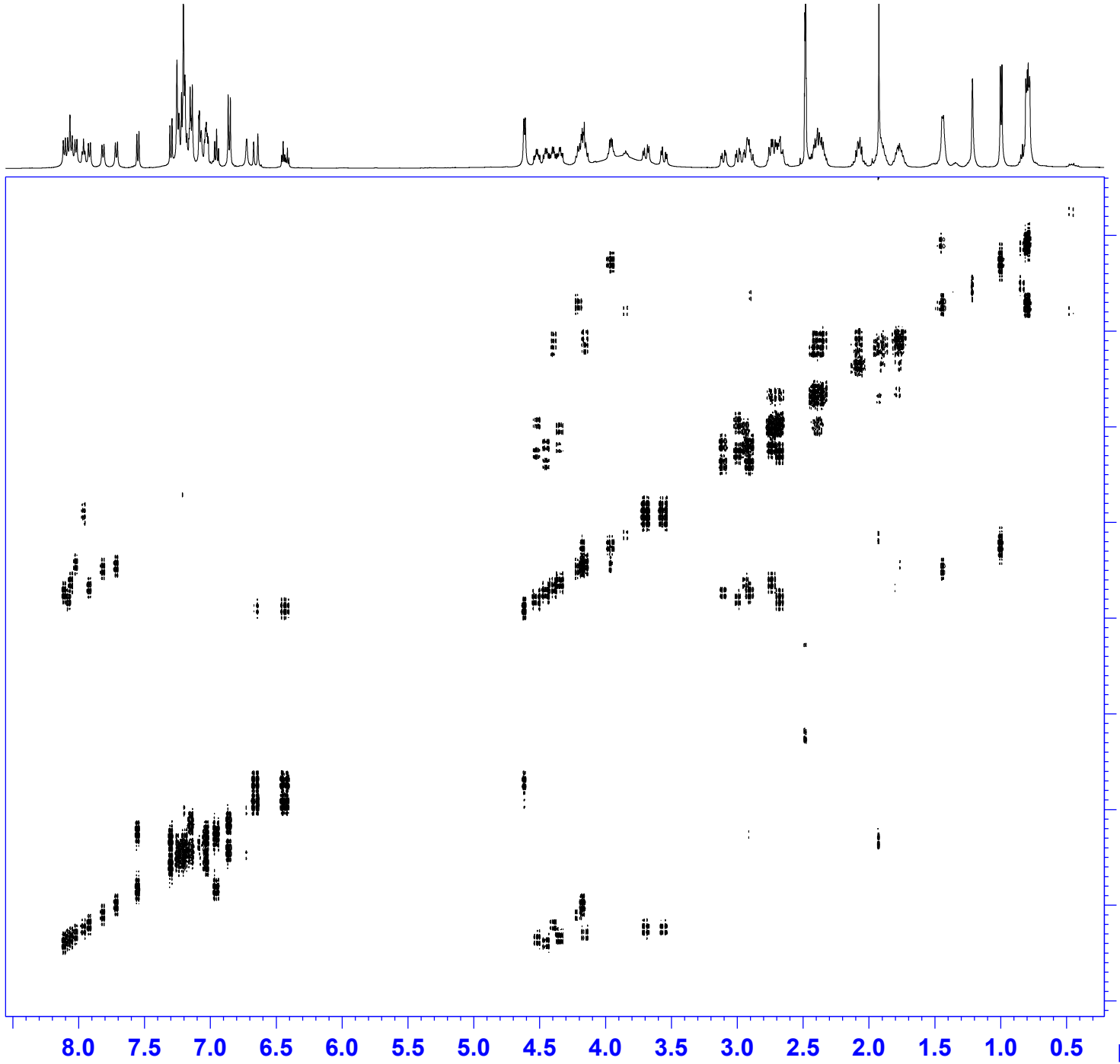
39

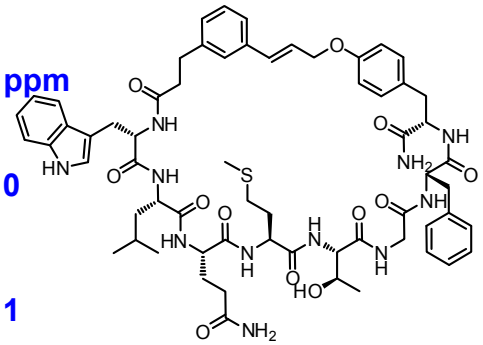



```
Current Data Parameters
NAME           KL-5-124
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20130201
Time              11.51
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG            zg30
TD                65536
SOLVENT            DMSO
NS                    8
DS                    0
SWH           10000.000 Hz
FIDRES            0.152588 Hz
AQ             3.2767999 sec
RG                22.82
DW                50.000 usec
DE                10.00 usec
TE                298.0 K
D1             2.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1         500.1330008 MHz
NUC1                1H
P1                10.00 usec
PLW1         13.50000000 W

F2 - Processing parameters
SI                65536
SF           500.1300146 MHz
WDW                  EM
SSB       0
LB                0.30 Hz
GB        0
PC                1.00
```

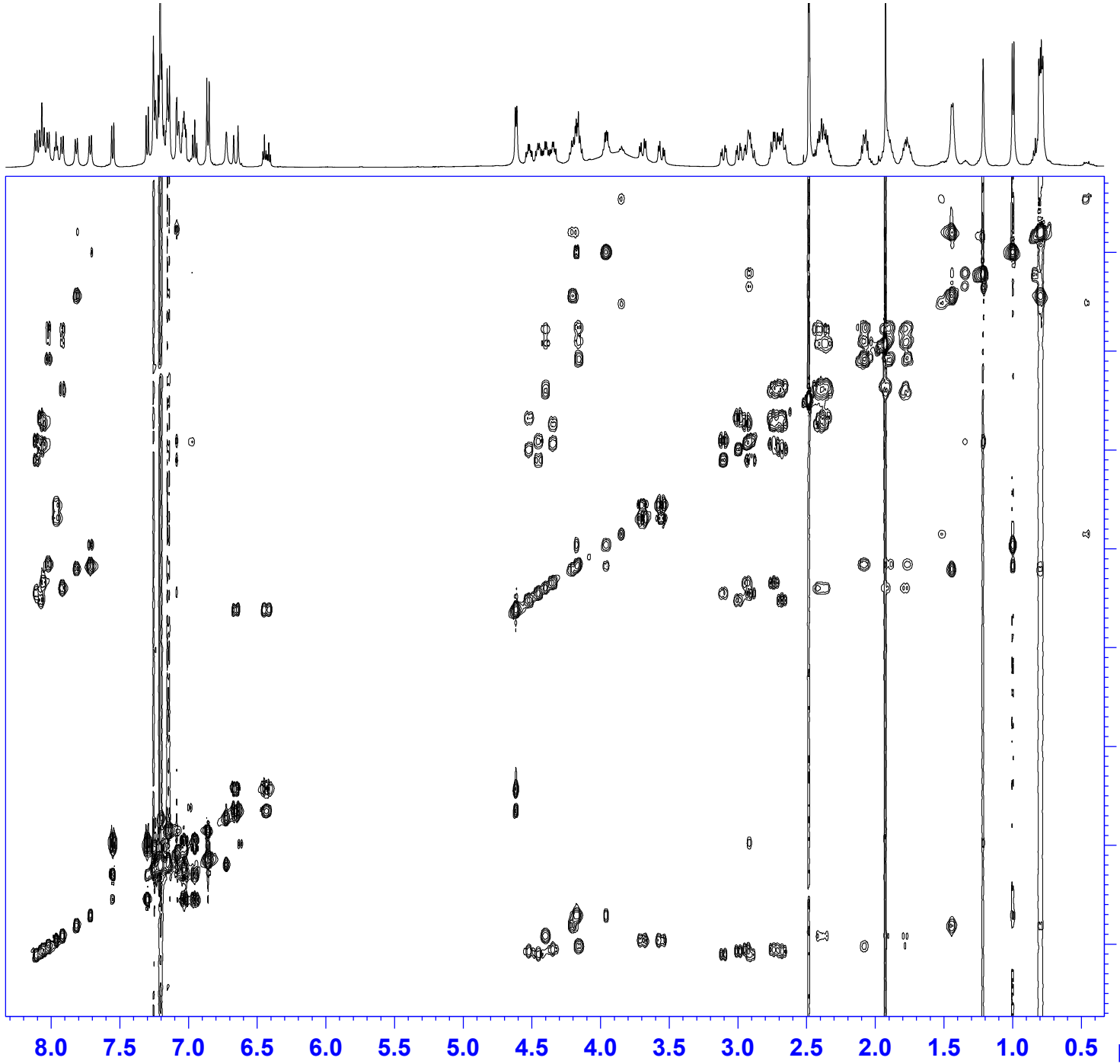


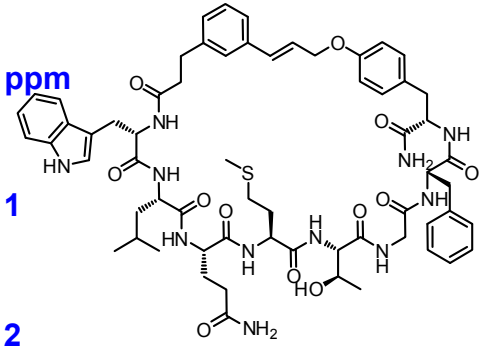

```
Current Data Parameters
NAME           KL-5-124
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20130201
Time              11.53
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            DMSO
NS                  162
DS                    2
SWH           31250.000 Hz
FIDRES            0.476837 Hz
AQ             1.0485760 sec
RG                202.91
DW                16.000 usec
DE                18.00 usec
TE                298.0 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1         125.7722511 MHz
NUC1                13C
P1                 9.63 usec
PLW1         23.00000000 W

======== CHANNEL f2 ========
SFO2         500.1330008 MHz
NUC2                1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2         13.50000000 W
PLW12         0.21094000 W
PLW13         0.13500001 W

F2 - Processing parameters
SI              131072
SF           125.7577892 MHz
WDW                  EM
SSB       0
LB                1.00 Hz
GB        0
PC                1.40
```



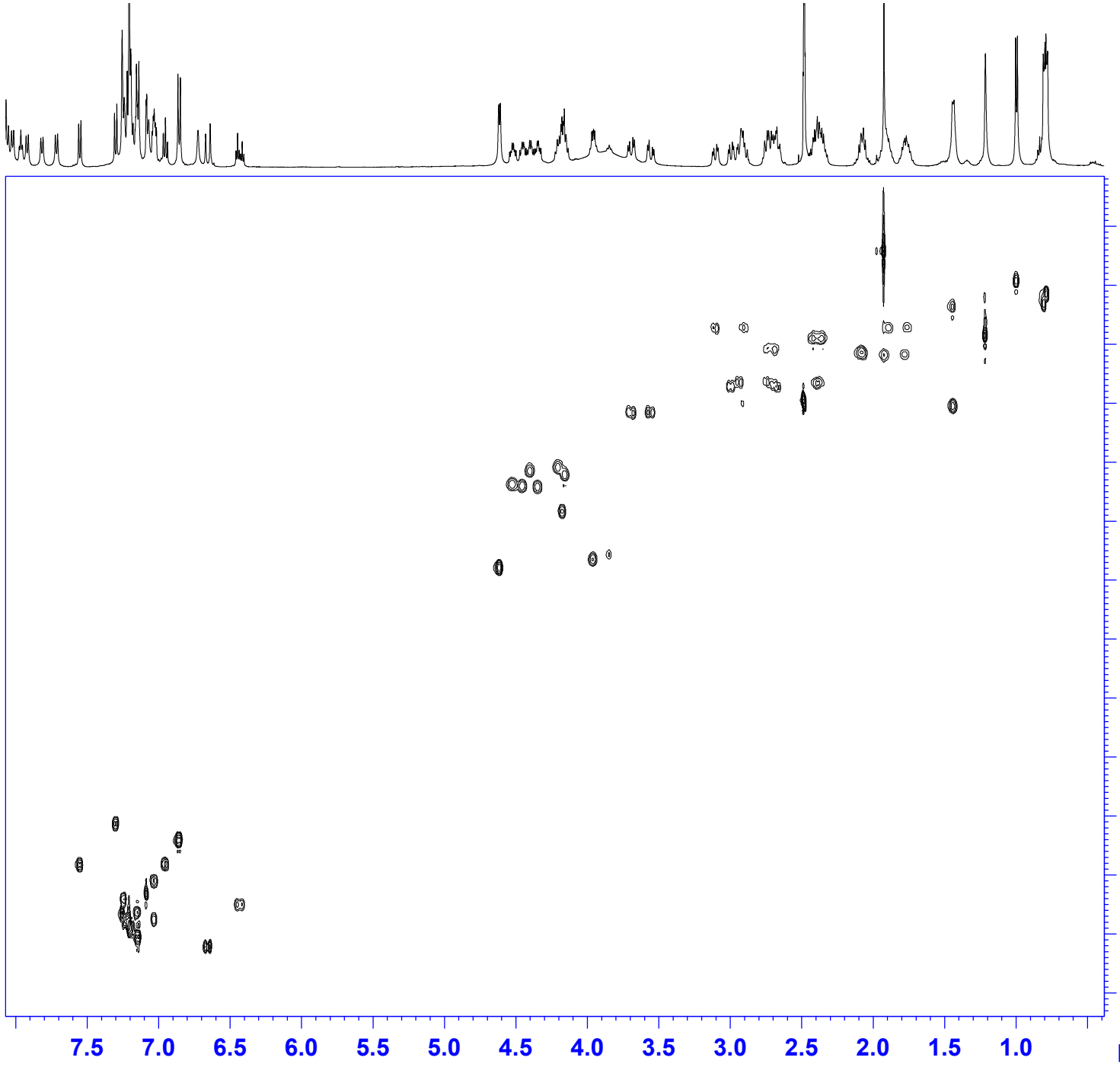


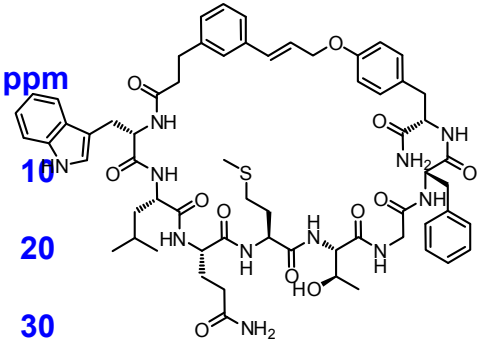
```
Current Data Parameters
NAME            KL-5-124
EXPNO                  3
PROCNO                 1

F2 - Acquisition Paramete
Date_           20130204
Time                19.05
INSTRUM           av500
PROBHD   5 mm DCH 13C-1
PULPROG      cosygpmfph
TD                  4096
SOLVENT              DMSO
NS                      2
DS                      8
SWH              5498.534 H
FIDRES           1.342415 H
AQ               0.3724629 s
RG                 202.91
DW                 90.933 u
DE                 10.00 u
TE                 298.0 K
D0              0.00007880 s
D1              2.00000000 s
D13             0.00000400 s
D16             0.00020000 s
IN0             0.00018180 s

======== CHANNEL f1 =====
SFO1         500.1327507 M
NUC1                1H
P1                 9.50 u
P2                19.00 u
PLW1         13.50000000 W

====== GRADIENT CHANNEL =
GPNAM[1]      SMSQ10.100
GPNAM[2]      SMSQ10.100
GPZ1               10.00 %
GPZ2               20.00 %
P16              1000.00 u

F1 - Acquisition paramete
TD                   256
SFO1          500.1328 M
FIDRES       21.486525 H
SW               10.998 p
```





```
Current Data Parameters
NAME                  KL-5-124
EXPNO                        4
PROCNO                       1

F2 - Acquisition Paramete:
Date_                 20130204
Time                     19.26
INSTRUM                  av500
PROBHD    5 mm DCH 13C-1
PULPROG          mlevetgp.js
TD                       2048
SOLVENT                  DMSO
NS                          2
DS                          8
SWH                  5000.000 H:
FIDRES               2.441406 H:
AQ                   0.2048000 s
RG                       37.94
DW                      100.000 u:
DE                       10.00 u:
TE                       298.0 K
D0                  0.00000300 s
D1                  2.00000000 s
D9                  0.06000000 s
D11                 0.03000000 s
D12                 0.00002000 s
D16                 0.00020000 s
IN0                 0.00020000 s
L1                          24

======== CHANNEL f1 =====:
SFO1               500.1325007 M
NUC1                        1H
P1                        9.50 u:
P2                       19.00 u:
P5                       26.68 u:
P6                       40.00 u:
P7                       80.00 u:
P17                    2500.00 u:
PLW1               13.50000000 W
PLW10               0.84375000 W

====== GRADIENT CHANNEL =:
GPNAM[1]              SINE.100
GPNAM[2]              SINE.100
GPZ1                     30.00 %
```

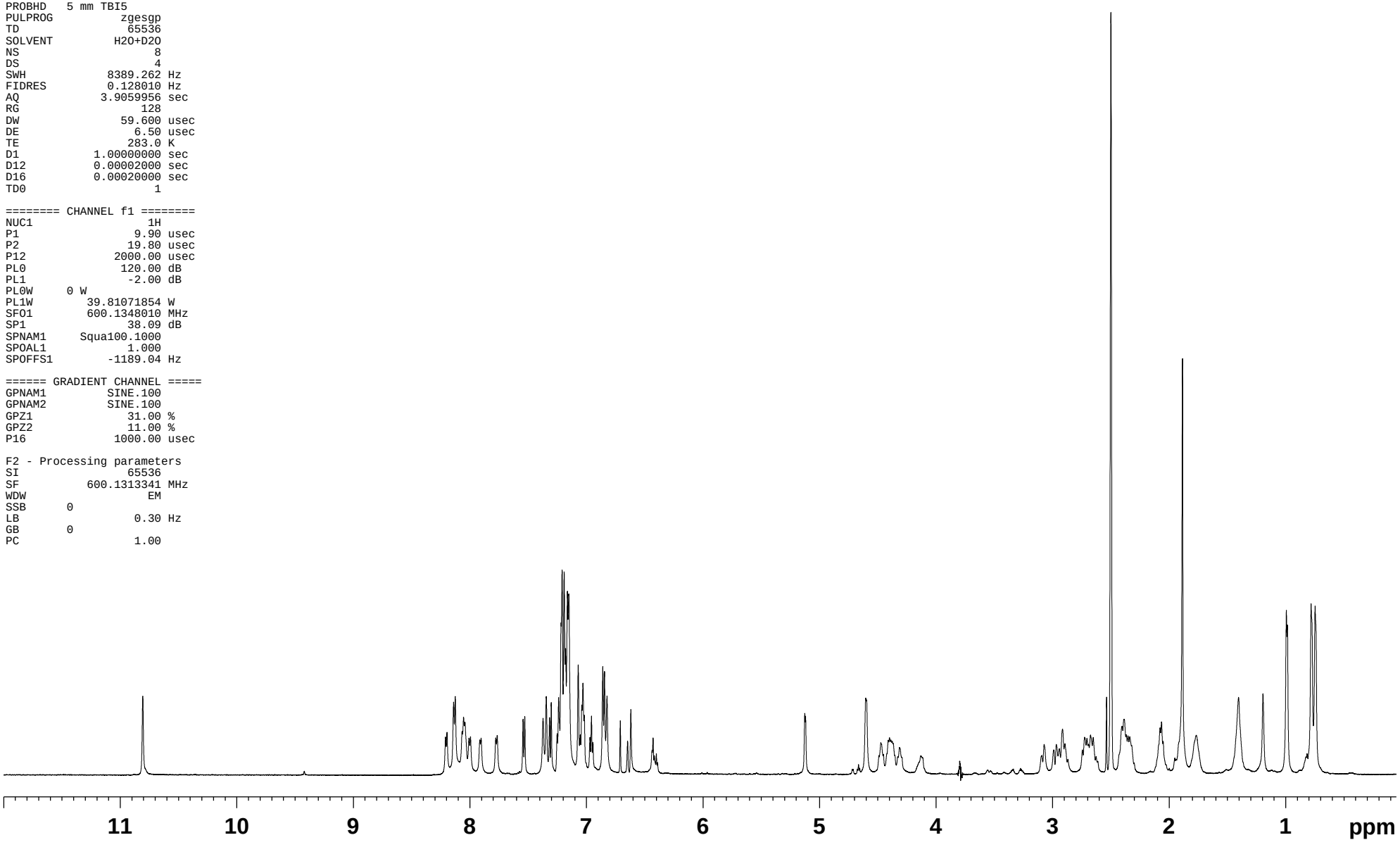


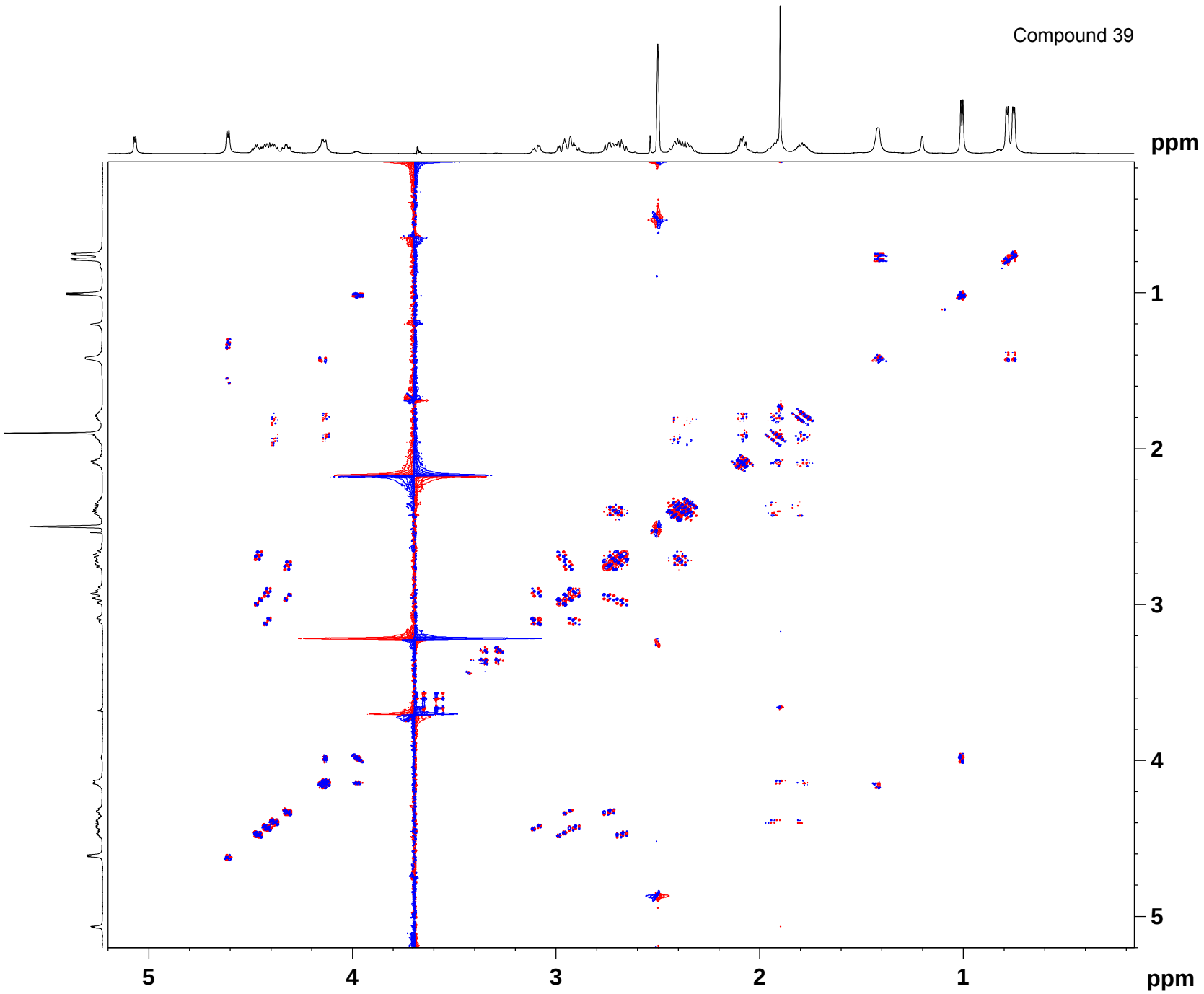


```
Current Data Parameters
NAME            KL-5-124
EXPNO                  5
PROCNO                 1

F2 - Acquisition Paramete
Date_           20130204
Time                19.46
INSTRUM             av500
PROBHD   5 mm DCH 13C-1
PULPROG      hsqcedetgp
TD                  2048
SOLVENT             DMSO
NS                     2
DS                    16
SWH            5000.000 H
FIDRES         2.441406 H
AQ             0.2048000 s
RG                202.91
DW               100.000 u
DE                10.00 u
TE                298.0 K
CNST2        145.0000000
D0             0.00000300 s
D1             1.50000000 s
D4             0.00172414 s
D11            0.03000000 s
D13            0.00000400 s
D16            0.00020000 s
D21            0.00345000 s
IN0            0.00001990 s
ZGOPTNS

======== CHANNEL f1 =====
SFO1         500.1325007 M
NUC1                1H
P1                9.50 u
P2               19.00 u
P28       0 usec
PLW1        13.50000000 W

======== CHANNEL f2 =====
SFO2         125.7678496 M
NUC2                13C
CPDPRG[2           garp
P3                9.63 u
P4               19.26 u
```

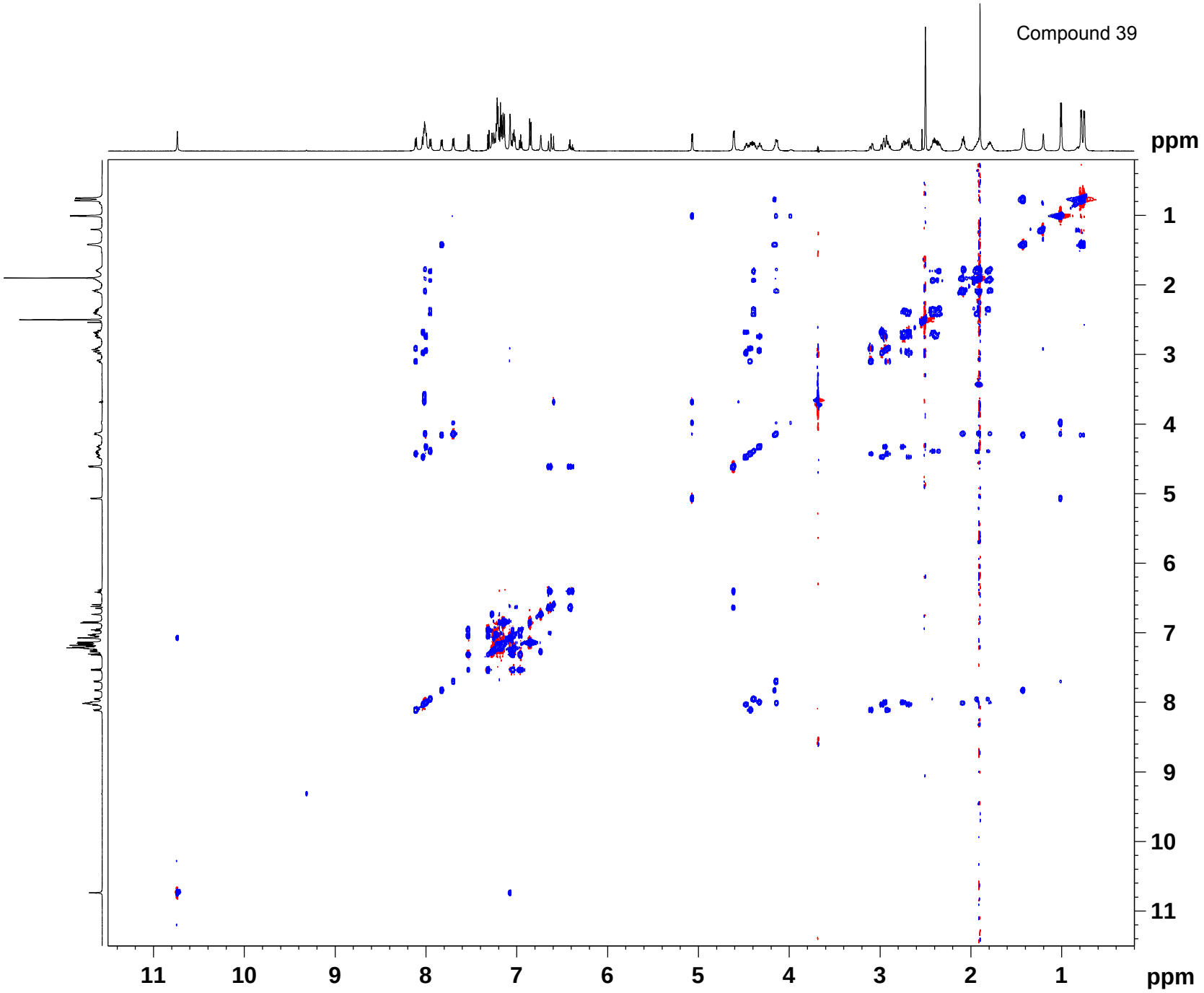
Compound 39

```
Current Data Parameters
NAME            KL5-124
EXPNO                24
PROCNO                1

F2 - Acquisition Parameters
Date_          20130314
Time              21.43
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG          zgesgp
TD                65536
SOLVENT         H2O+D2O
NS                    8
DS                    4
SWH            8389.262 Hz
FIDRES         0.128010 Hz
AQ            3.9059956 sec
RG                  128
DW               59.600 usec
DE                6.50 usec
TE                283.0 K
D1           1.00000000 sec
D12          0.00002000 sec
D16          0.00020000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                 9.90 usec
P2                19.80 usec
P12             2000.00 usec
PL0              120.00 dB
PL1               -2.00 dB
PL0W     0 W
PL1W       39.81071854 W
SFO1        600.1348010 MHz
SP1               38.09 dB
SPNAM1     Squa100.1000
SPOAL1           1.000
SPOFFS1        -1189.04 Hz

====== GRADIENT CHANNEL =====
GPNAM1         SINE.100
GPNAM2         SINE.100
GPZ1              31.00 %
GPZ2              11.00 %
P16             1000.00 usec

F2 - Processing parameters
SI                65536
SF          600.1313341 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

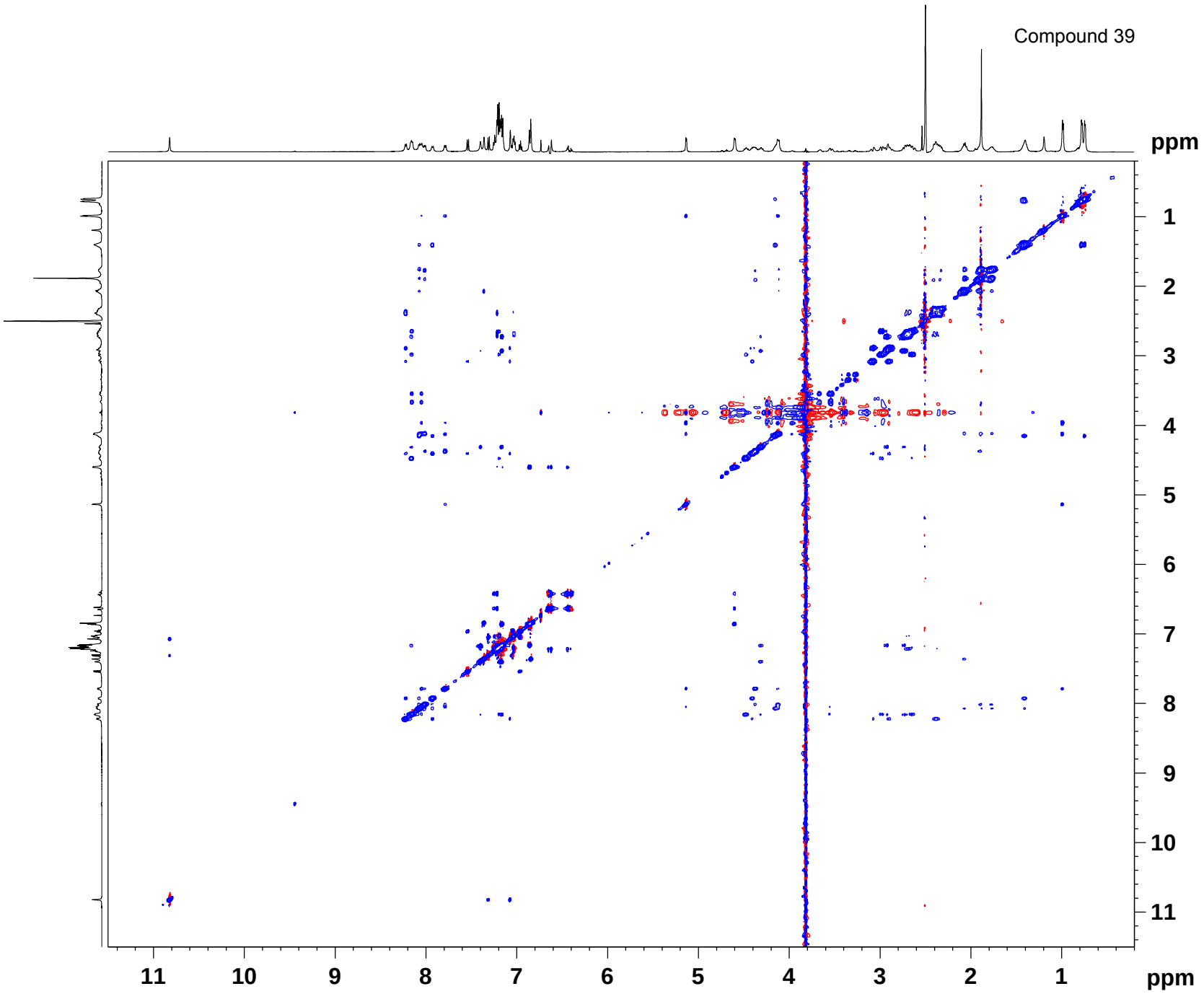




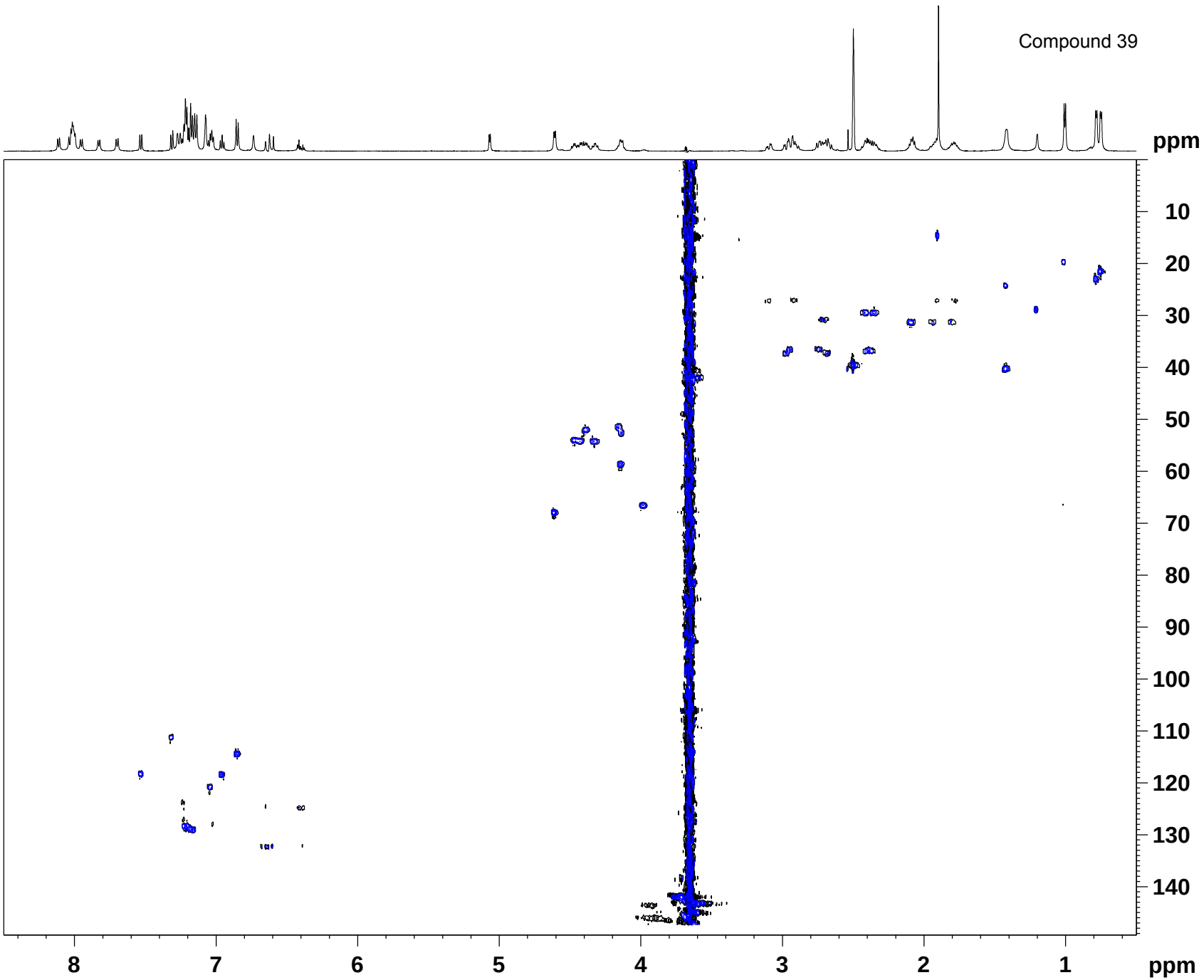

```
Current Data Parameters
NAME      KL5-124 mulder
EXPNO                  6
PROCNO                 1

F2 - Acquisition Parameters
Date_           20130322
Time               13.29
INSTRUM            spect
PROBHD   5 mm QXI 1H Z-
PULPROG         ecos3cph
TD                 2048
SOLVENT             D2O
NS                   12
DS                   32
SWH            2540.650 Hz
FIDRES         1.240552 Hz
AQ            0.4030964 sec
RG                   256
DW              196.800 usec
DE                6.00 usec
TE                300.0 K
d0           0.00018381 sec
D1           2.00000000 sec
d13          0.00000400 sec
IN0          0.00039360 sec
MCREST    0 sec
MCWRK        1.00000000 sec
ST1CNT                 0

======== CHANNEL f1 ========
NUC1                  1H
P1                10.20 usec
PL1               -3.00 dB
SFO1        500.0913502 MHz

F1 - Acquisition parameters
TD                   900
SFO1           500.0914 MHz
FIDRES         2.822945 Hz
SW                5.080 ppm
FnMODE       States-TPPI

F2 - Processing parameters
SI                  4096
SF           500.0900073 MHz
WDW                 QSINE
SSB                    3
LB        0 Hz
GB        0
PC                  1.00

F1 - Processing parameters
SI                  4096
MC2          States-TPPI
SF           500.0900024 MHz
WDW
SSB                    3
LB        0 Hz
GB        0
```



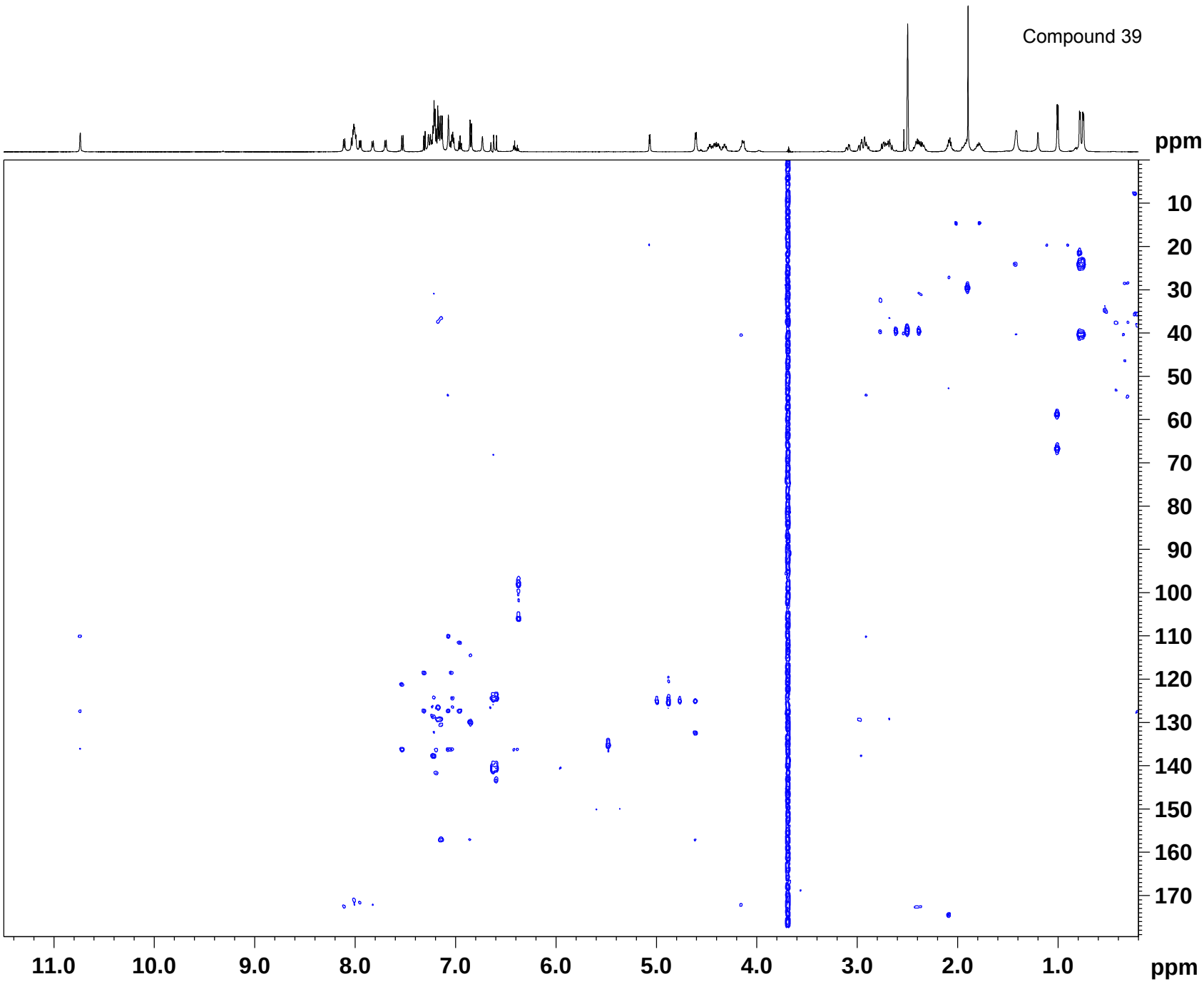

```
Current Data Parameters
NAME                  KL5-124
EXPNO                      13
PROCNO                      1

F2 - Acquisition Parameters
Date_                20130312
Time                    19.49
INSTRUM                 av600
PROBHD    5 mm TBI5
PULPROG     dipsi2esgpph
TD                       2048
SOLVENT              H2O+D2O
NS                          8
DS                         16
SWH                  8389.262 Hz
FIDRES               4.096319 Hz
AQ                  0.1221108 sec
RG                       25.4
DW                     59.600 usec
DE                      6.50 usec
TE                     298.0 K
D0                0.00004687 sec
D1                1.50000000 sec
D9                0.06000000 sec
D11               0.03000000 sec
D12               0.00002000 sec
D13               0.00000400 sec
D16               0.00020000 sec
IN0               0.00011920 sec
L1                         14

======== CHANNEL f1 ========
NUC1                       1H
P1                      10.00 usec
P2                      20.00 usec
P6                      40.00 usec
P12                   2000.00 usec
PL0                    120.00 dB
PL1                     -2.00 dB
PL9                     80.00 dB
PL10                    10.04 dB
PL1W             39.81071854 W
PL9W              0.00000025 W
PL10W             2.48885727 W
SFO1             600.1348010 MHz
SP1                     38.00 dB
SPNAM1          Squa100.1000
SPOAL1                 1.000
SPOFFS1              -1257.00 Hz

====== GRADIENT CHANNEL =====
GPNAM1               SINE.100
GPNAM2               SINE.100
GPNAM3               SINE.100
GPNAM4               SINE.100
GPZ1                    1.00 %
GPZ2                    3.00 %
GPZ3                   31.00 %
GPZ4                   11.00 %
P16                  1000.00 usec

F1 - Acquisition parameters
TD                         248
SFO1                600.1348 MHz
FIDRES             33.827667 Hz
SW                    13.979 ppm
FnMODE            States-TPPI

F2 - Processing parameters
SI                        4096
SF                600.1313340 MHz
WDW                     QSINE
SSB                       2.5
PC                        1.00

F1 - Processing parameters
SI                        4096
MC2               States-TPPI
SF                600.1313332 MHz
WDW                     QSINE
SSB                       2.5
```




```
Current Data Parameters
NAME            KL5-124
EXPNO                47
PROCNO                1

F2 - Acquisition Parameters
Date_          20130316
Time              22.44
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG     noesyesgpph
TD                 4096
SOLVENT          H2O+D2O
NS                   24
DS                   16
SWH            8389.262 Hz
FIDRES         2.048160 Hz
AQ             0.2441716 sec
RG                 322.5
DW                59.600 usec
DE                 6.50 usec
TE                280.0 K
D0           0.00004657 sec
D1           2.00000000 sec
D8           0.15000001 sec
D11          0.03000000 sec
D12          0.00002000 sec
D16          0.00020000 sec
IN0          0.00011920 sec

======== CHANNEL f1 ========
NUC1                1H
P1                10.23 usec
P2                20.46 usec
P12             3000.00 usec
PL0              120.00 dB
PL1               -2.00 dB
PL0W      0 W
PL1W        39.81071854 W
SFO1        600.1348010 MHz
SP1               43.82 dB
SPNAM1     Squa100.1000
SPOAL1           1.000
SPOFFS1       -1176.04 Hz

====== GRADIENT CHANNEL =====
GPNAM1         SINE.100
GPNAM2         SINE.100
GPZ1              31.00 %
GPZ2              11.00 %
P16             1000.00 usec

F1 - Acquisition parameters
TD                 512
SFO1          600.1348 MHz
FIDRES        16.385277 Hz
SW              13.979 ppm
FnMODE      States-TPPI

F2 - Processing parameters
SI                 4096
SF          600.1313334 MHz
WDW               QSINE
SSB                2.5
LB        0 Hz
GB        0
PC                1.00

F1 - Processing parameters
SI                 4096
MC2         States-TPPI
SF          600.1313325 MHz
WDW
SSB                2.5
LB        0 Hz
GB        0
```



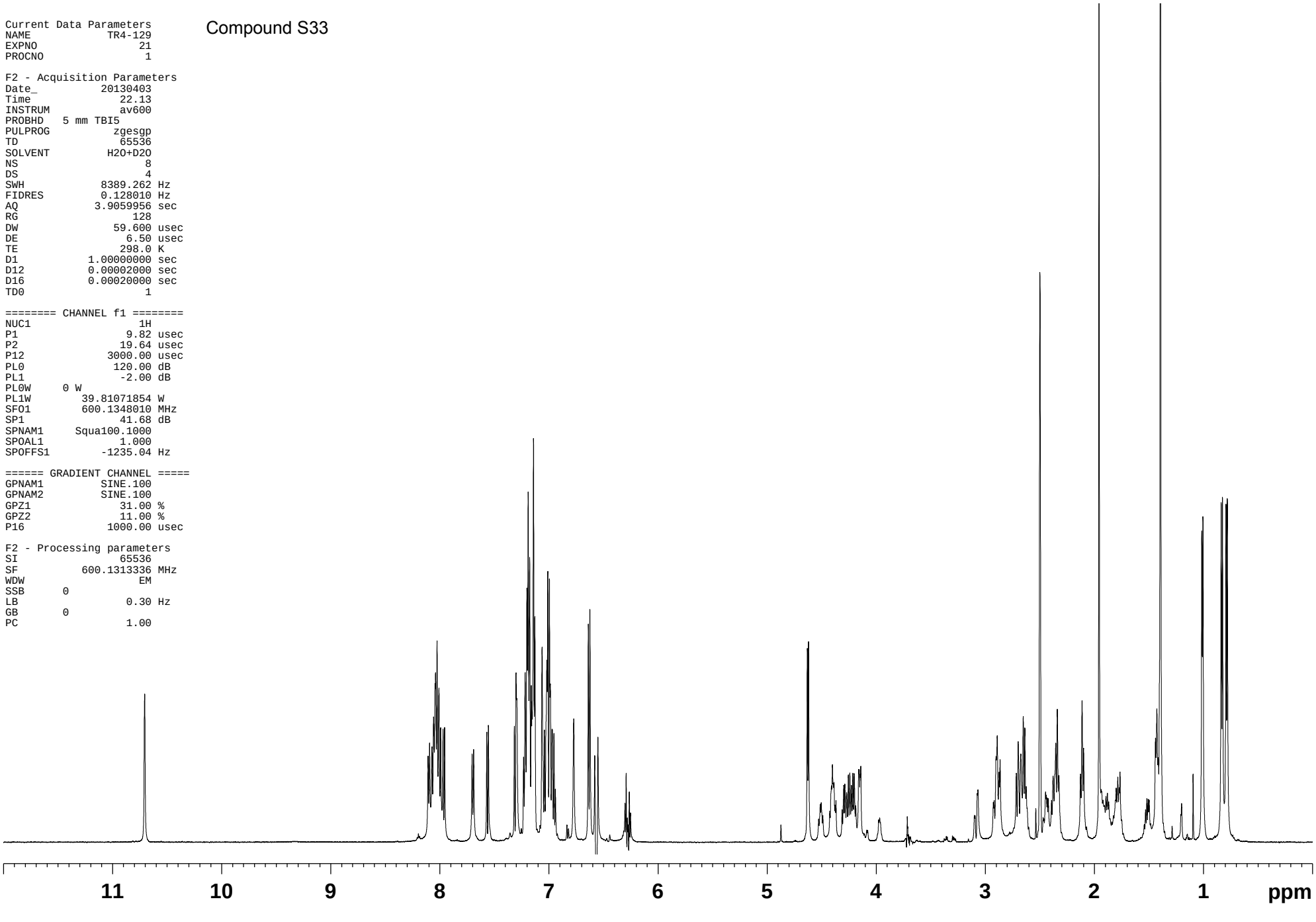

```
Current Data Parameters
NAME                  KL5-124
EXPNO                      21
PROCNO                      1

F2 - Acquisition Parameters
Date_               20130314
Time                   18.55
INSTRUM                av600
PROBHD   5 mm TBI5
PULPROG    hsqcetgpsisp
TD                       2048
SOLVENT              H2O+D2O
NS                          8
DS                         16
SWH                 5165.289 Hz
FIDRES              2.522114 Hz
AQ                  0.1982964 sec
RG                      26008
DW                     96.800 usec
DE                      6.00 usec
TE                     298.0 K
CNST2              145.0000000
D0                  0.00000300 sec
D1                  1.00000000 sec
D4                  0.00172414 sec
D11                 0.03000000 sec
D16                 0.00020000 sec
D24                 0.00086200 sec
IN0                 0.00002070 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1                       1H
P1                       9.90 usec
P2                      19.80 usec
P28                   1000.00 usec
PL1                     -2.00 dB
PL1W               39.81071854 W
SFO1               600.1339609 MHz

======== CHANNEL f2 ========
CPDPRG2                  garp
NUC2                      13C
P3                      19.52 usec
P4                      39.04 usec
P14                   1000.00 usec
PCPD2                   65.00 usec
PL0                    120.00 dB
PL2                     -3.00 dB
PL12                     7.45 dB
PL2W              150.35617065 W
PL12W              13.55567932 W
SFO2               150.9133722 MHz
SP3                      4.12 dB
SPNAM3   Crp80,0.5,20.1
SPOAL3                  0.500
SPOFFS3  0 Hz

====== GRADIENT CHANNEL =====
GPNAM1                SINE.100
GPNAM2                SINE.100
GPZ1                    80.00 %
GPZ2                    20.10 %
P16                   1000.00 usec

F1 - Acquisition parameters
TD                         169
SFO1               150.9134 MHz
FIDRES             142.876572 Hz
SW                    160.000 ppm
FnMODE    Echo-Antiecho

F2 - Processing parameters
SI                        4096
SF                 600.1313329 MHz
WDW                         EM
SSB      0
LB                      1.00 Hz
PC                      1.40

F1 - Processing parameters
SI                        4096
MC2               echo-antiecho
SF                 150.9032019 MHz
WDW                        SINE
SSB                         2.5
```

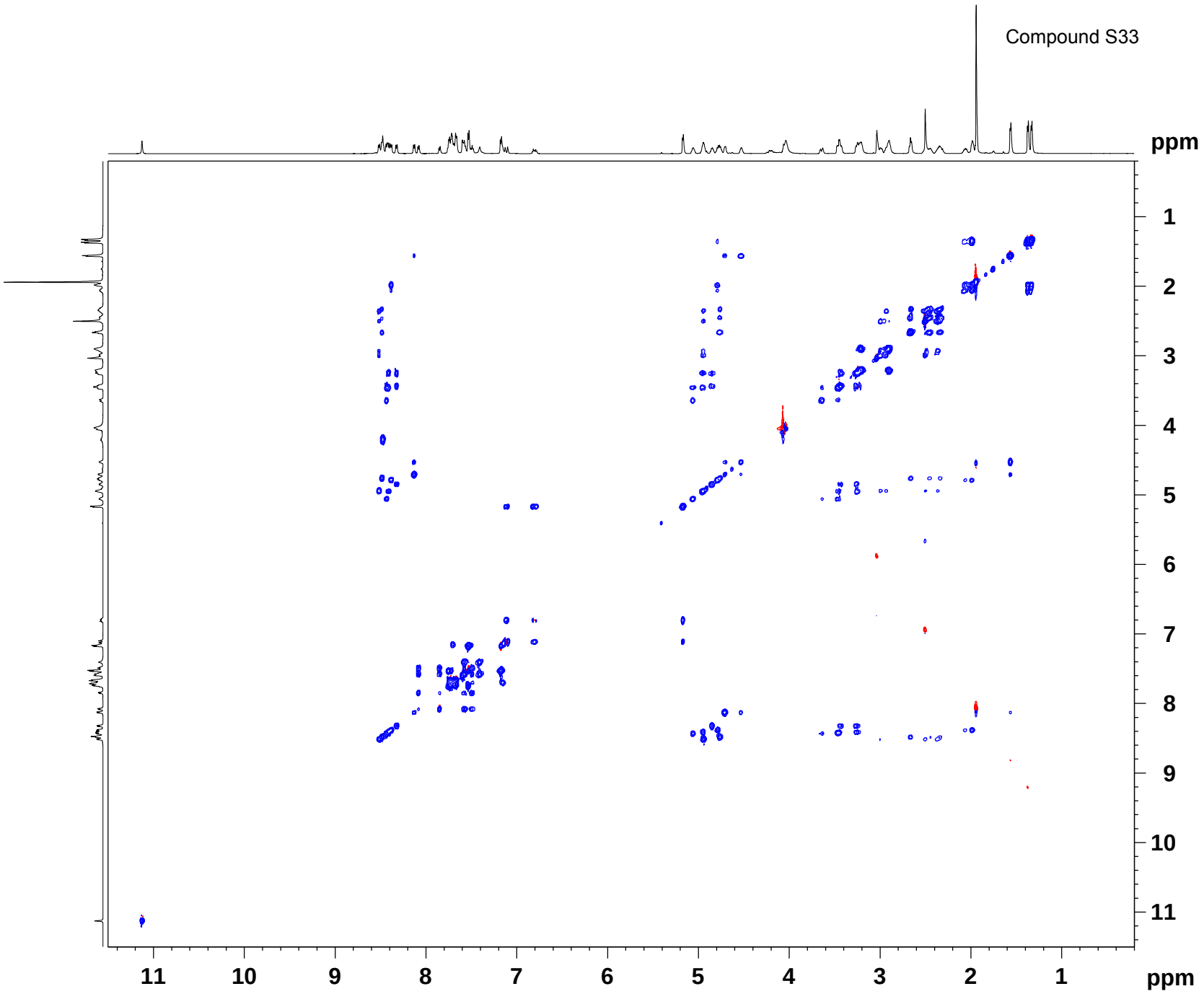



```
Current Data Parameters
NAME            KL5-124
EXPNO                23
PROCNO                1

F2 - Acquisition Parameters
Date_          20130314
Time              19.37
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG    hmbcgplpndqf
TD                 2048
SOLVENT          H2O+D2O
NS                   24
DS                   64
SWH            6887.052 Hz
FIDRES         3.362818 Hz
AQ            0.1487348 sec
RG                26008
DW              72.600 usec
DE               6.00 usec
TE              298.0 K
CNST2       145.0000000
CNST13        7.0000000
D0          0.00000300 sec
D1          1.00000000 sec
D2          0.00344828 sec
D6          0.07142857 sec
D16         0.00020000 sec
IN0         0.00001745 sec

======== CHANNEL f1 ========
NUC1                 1H
P1                 9.90 usec
P2                19.80 usec
PL1               -2.00 dB
PL1W        39.81071854 W
SFO1        600.1347710 MHz

======== CHANNEL f2 ========
NUC2                13C
P3                19.52 usec
PL2               -3.00 dB
PL2W       150.35617065 W
SFO2        150.9156357 MHz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPNAM2          SINE.100
GPNAM3          SINE.100
GPZ1               50.00 %
GPZ2               30.00 %
GPZ3               40.10 %
P16              1000.00 usec

F1 - Acquisition parameters
TD                  197
SFO1           150.9156 MHz
FIDRES       145.553146 Hz
SW              190.000 ppm
FnMODE              QF

F2 - Processing parameters
SI                 4096
SF          600.1313342 MHz
WDW               QSINE
SSB       0
LB        0 Hz
GB        0
PC                1.40

F1 - Processing parameters
SI                 4096
MC2                QF
SF          150.9031854 MHz
WDW
SSB                   2
```

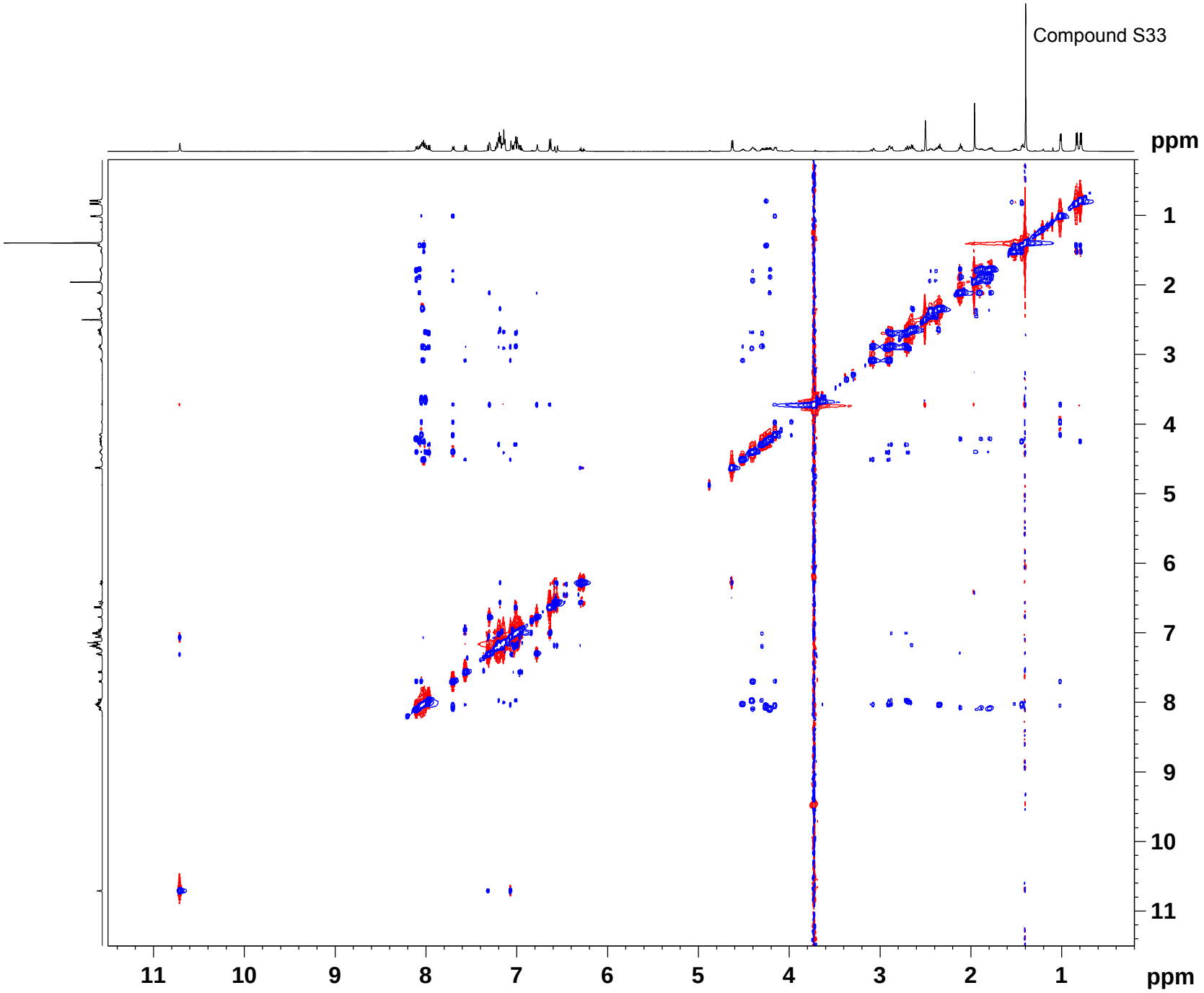
Compound S33

```
Current Data Parameters
NAME            TR4-129
EXPNO                21
PROCNO                1

F2 - Acquisition Parameters
Date_          20130403
Time              22.13
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG          zgesgp
TD                65536
SOLVENT         H2O+D2O
NS                    8
DS                    4
SWH            8389.262 Hz
FIDRES         0.128010 Hz
AQ            3.9059956 sec
RG                  128
DW               59.600 usec
DE                6.50 usec
TE                298.0 K
D1           1.00000000 sec
D12          0.00002000 sec
D16          0.00020000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                 9.82 usec
P2                19.64 usec
P12             3000.00 usec
PL0              120.00 dB
PL1               -2.00 dB
PL0W     0 W
PL1W       39.81071854 W
SFO1        600.1348010 MHz
SP1               41.68 dB
SPNAM1     Squa100.1000
SPOAL1            1.000
SPOFFS1        -1235.04 Hz

====== GRADIENT CHANNEL =====
GPNAM1         SINE.100
GPNAM2         SINE.100
GPZ1              31.00 %
GPZ2              11.00 %
P16             1000.00 usec

F2 - Processing parameters
SI                65536
SF          600.1313336 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

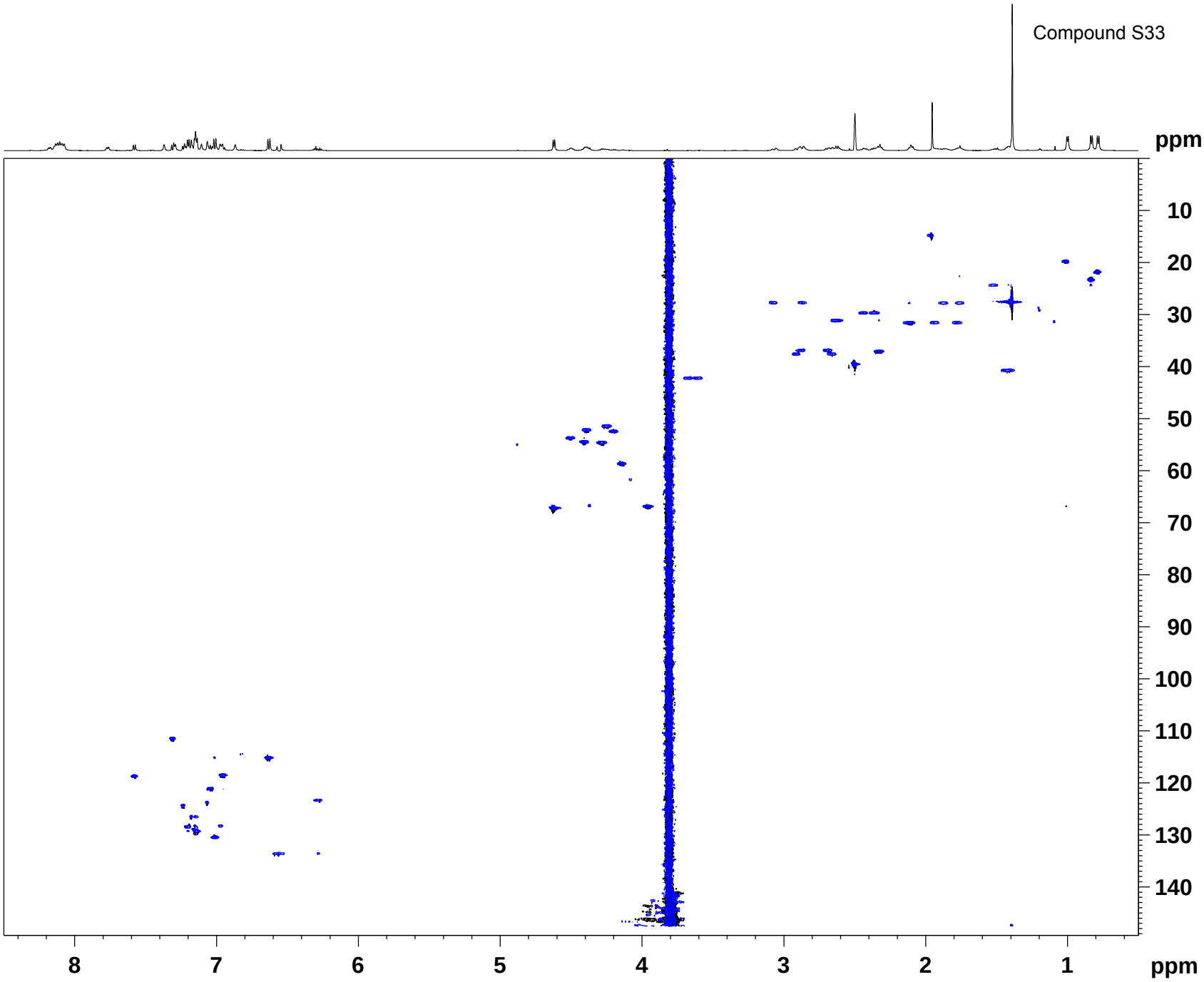





```
Current Data Parameters
NAME                  TR4-129
EXPNO                      13
PROCNO                      1

F2 - Acquisition Parameters
Date_               20130326
Time                   22.05
INSTRUM                av600
PROBHD    5 mm TBI5
PULPROG          mlevesgpph
TD                      2048
SOLVENT             H2O+D2O
NS                         2
DS                        16
SWH                8389.262 Hz
FIDRES             4.096319 Hz
AQ                 0.1221108 sec
RG                       362
DW                    59.600 usec
DE                     6.50 usec
TE                    323.0 K
D0                 0.00003310 sec
D1                 1.00000000 sec
D9                 0.06000000 sec
D12                0.00002000 sec
D16                0.00020000 sec
IN0                0.00011920 sec
L1                         24

======== CHANNEL f1 ========
NUC1                       1H
P1                      10.21 usec
P2                      20.42 usec
P5                      26.68 usec
P6                      40.00 usec
P7                      80.00 usec
P12                   2000.00 usec
P17                   2500.00 usec
PL0                    120.00 dB
PL1                     -2.00 dB
PL10                     9.86 dB
PL0W      0 W
PL1W             39.81071854 W
PL10W             2.59417963 W
SFO1             600.1348010 MHz
SP1                     37.82 dB
SPNAM1          Squa100.1000
SPOAL1                 1.000
SPOFFS1            -1345.04 Hz

====== GRADIENT CHANNEL =====
GPNAM1               SINE.100
GPNAM2               SINE.100
GPZ1                    31.00 %
GPZ2                    11.00 %
P16                   1000.00 usec

F1 - Acquisition parameters
TD                         256
SFO1             600.1348 MHz
FIDRES            32.770554 Hz
SW                   13.979 ppm
FnMODE           States-TPPI

F2 - Processing parameters
SI                        4096
SF               600.1310113 MHz
WDW                      QSINE
SSB                         2
PC                       1.00

F1 - Processing parameters
SI                        4096
MC2              States-TPPI
SF               600.1310119 MHz
WDW
SSB                         2
```



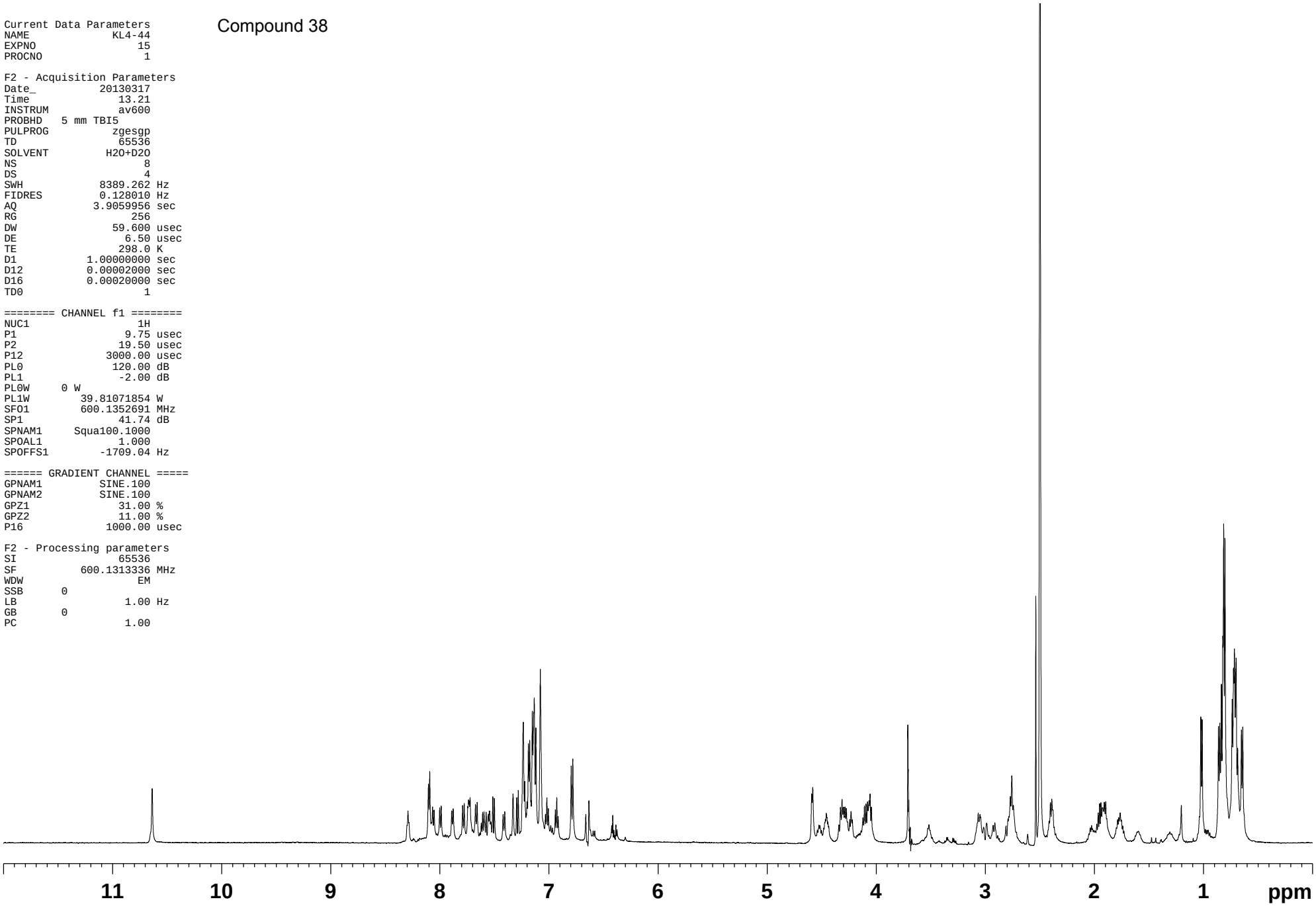

```
Current Data Parameters
NAME                  TR4-129
EXPNO                      22
PROCNO                      1

F2 - Acquisition Parameters
Date_               20130403
Time                   22.20
INSTRUM                av600
PROBHD   5 mm TBI5
PULPROG         noesyesgpph
TD                       4096
SOLVENT              H2O+D2O
NS                          8
DS                         16
SWH                 8389.262 Hz
FIDRES              2.048160 Hz
AQ                  0.2441716 sec
RG                      574.7
DW                     59.600 usec
DE                      6.50 usec
TE                     298.0 K
D0                  0.00004710 sec
D1                  2.00000000 sec
D8                  0.30000001 sec
D11                 0.03000000 sec
D12                 0.00002000 sec
D16                 0.00020000 sec
IN0                 0.00011920 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                       9.82 usec
P2                      19.64 usec
P12                   3000.00 usec
PL0                    120.00 dB
PL1                     -2.00 dB
PL0W      0 W
PL1W             39.81071854 W
SFO1             600.1348010 MHz
SP1                     41.68 dB
SPNAM1          Squa100.1000
SPOAL1                 1.000
SPOFFS1             -1171.44 Hz

====== GRADIENT CHANNEL =====
GPNAM1               SINE.100
GPNAM2               SINE.100
GPZ1                    31.00 %
GPZ2                    11.00 %
P16                   1000.00 usec

F1 - Acquisition parameters
TD                         256
SFO1                600.1348 MHz
FIDRES             32.770527 Hz
SW                     13.979 ppm
FnMODE           States-TPPI

F2 - Processing parameters
SI                       4096
SF                600.1313313 MHz
WDW                     QSINE
SSB                         2
PC                       1.00

F1 - Processing parameters
SI                       4096
MC2              States-TPPI
SF                600.1313330 MHz
WDW
SSB                         3
```

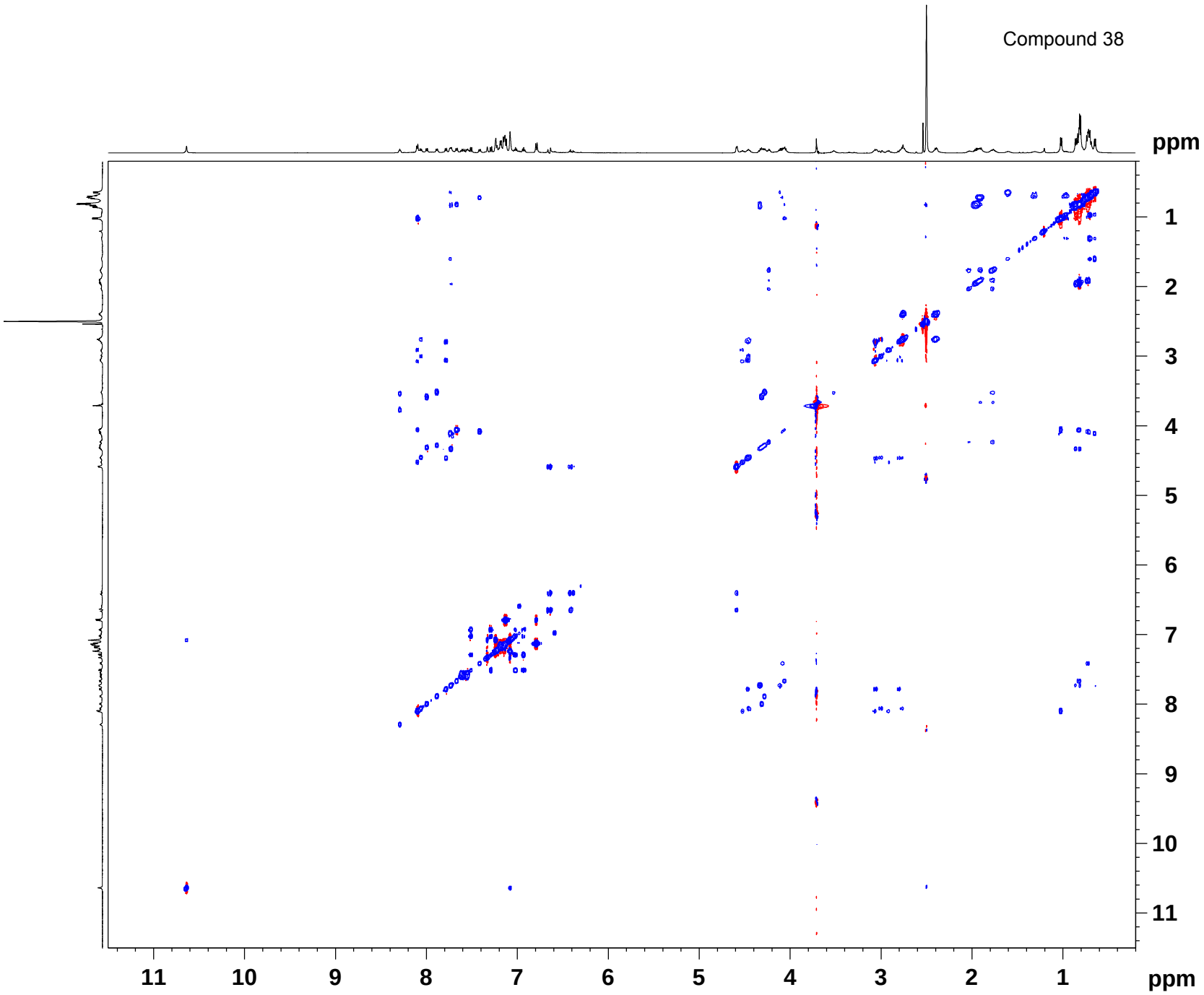



```
Current Data Parameters
NAME                  TR4-129
EXPNO                      17
PROCNO                      1

F2 - Acquisition Parameters
Date_                20130326
Time                    23.30
INSTRUM                 av600
PROBHD   5 mm TBI5
PULPROG    hsqcetgpsisp
TD                        2048
SOLVENT               H2O+D2O
NS                           4
DS                          16
SWH                  4921.260 Hz
FIDRES               2.402959 Hz
AQ                   0.2081268 sec
RG                        8192
DW                    101.600 usec
DE                      6.00 usec
TE                      283.1 K
CNST2               145.0000000
D0                   0.00000300 sec
D1                   1.00000000 sec
D4                   0.00172414 sec
D11                  0.03000000 sec
D16                  0.00020000 sec
D24                  0.00086200 sec
IN0                  0.00002070 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1                        1H
P1                        9.90 usec
P2                       19.80 usec
P28                    1000.00 usec
PL1                      -2.00 dB
PL1W                39.81071854 W
SFO1                600.1340570 MHz

======== CHANNEL f2 ========
CPDPRG2                   garp
NUC2                       13C
P3                       19.52 usec
P4                       39.04 usec
P14                    1000.00 usec
PCPD2                    65.00 usec
PL0                     120.00 dB
PL2                      -3.00 dB
PL12                      7.45 dB
PL0W             0 W
PL2W               150.35617065 W
PL12W               13.55567932 W
SFO2                150.9133722 MHz
SP3                       4.12 dB
SPNAM3          Crp80,0.5,20.1
SPOAL3                   0.500
SPOFFS3         0 Hz

====== GRADIENT CHANNEL =====
GPNAM1                 SINE.100
GPNAM2                 SINE.100
GPZ1                     80.00 %
GPZ2                     20.10 %
P16                    1000.00 usec

F1 - Acquisition parameters
TD                          512
SFO1                 150.9134 MHz
FIDRES               47.160427 Hz
SW                     160.000 ppm
FnMODE           Echo-Antiecho

F2 - Processing parameters
SI                         4096
SF                600.1313271 MHz
WDW                          EM
SSB              0
LB                        1.00 Hz
PC                        1.40

F1 - Processing parameters
SI                         4096
MC2               echo-antiecho
SF                  150.9031701 MHz
WDW
SSB                       2.5
```

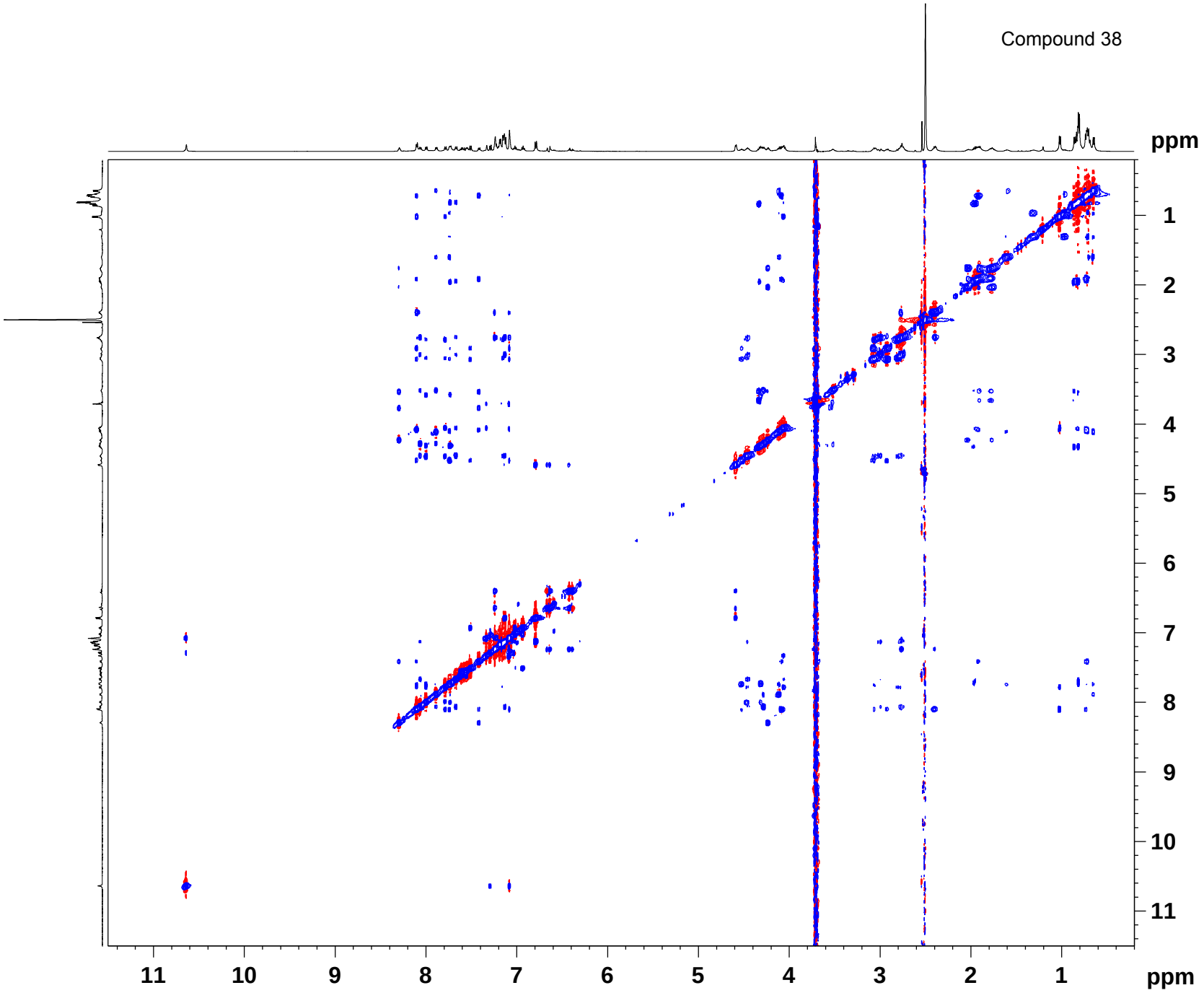
Compound 38

```
Current Data Parameters
NAME             KL4-44
EXPNO                15
PROCNO                1

F2 - Acquisition Parameters
Date_          20130317
Time              13.21
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG           zgesgp
TD                65536
SOLVENT         H2O+D2O
NS                    8
DS                    4
SWH            8389.262 Hz
FIDRES         0.128010 Hz
AQ            3.9059956 sec
RG                  256
DW               59.600 usec
DE                6.50 usec
TE                298.0 K
D1           1.00000000 sec
D12          0.00002000 sec
D16          0.00020000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                 9.75 usec
P2                19.50 usec
P12             3000.00 usec
PL0              120.00 dB
PL1               -2.00 dB
PL0W     0 W
PL1W        39.81071854 W
SFO1        600.1352691 MHz
SP1                41.74 dB
SPNAM1     Squa100.1000
SPOAL1            1.000
SPOFFS1        -1709.04 Hz

====== GRADIENT CHANNEL =====
GPNAM1         SINE.100
GPNAM2         SINE.100
GPZ1              31.00 %
GPZ2              11.00 %
P16             1000.00 usec

F2 - Processing parameters
SI                65536
SF          600.1313336 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.00
```

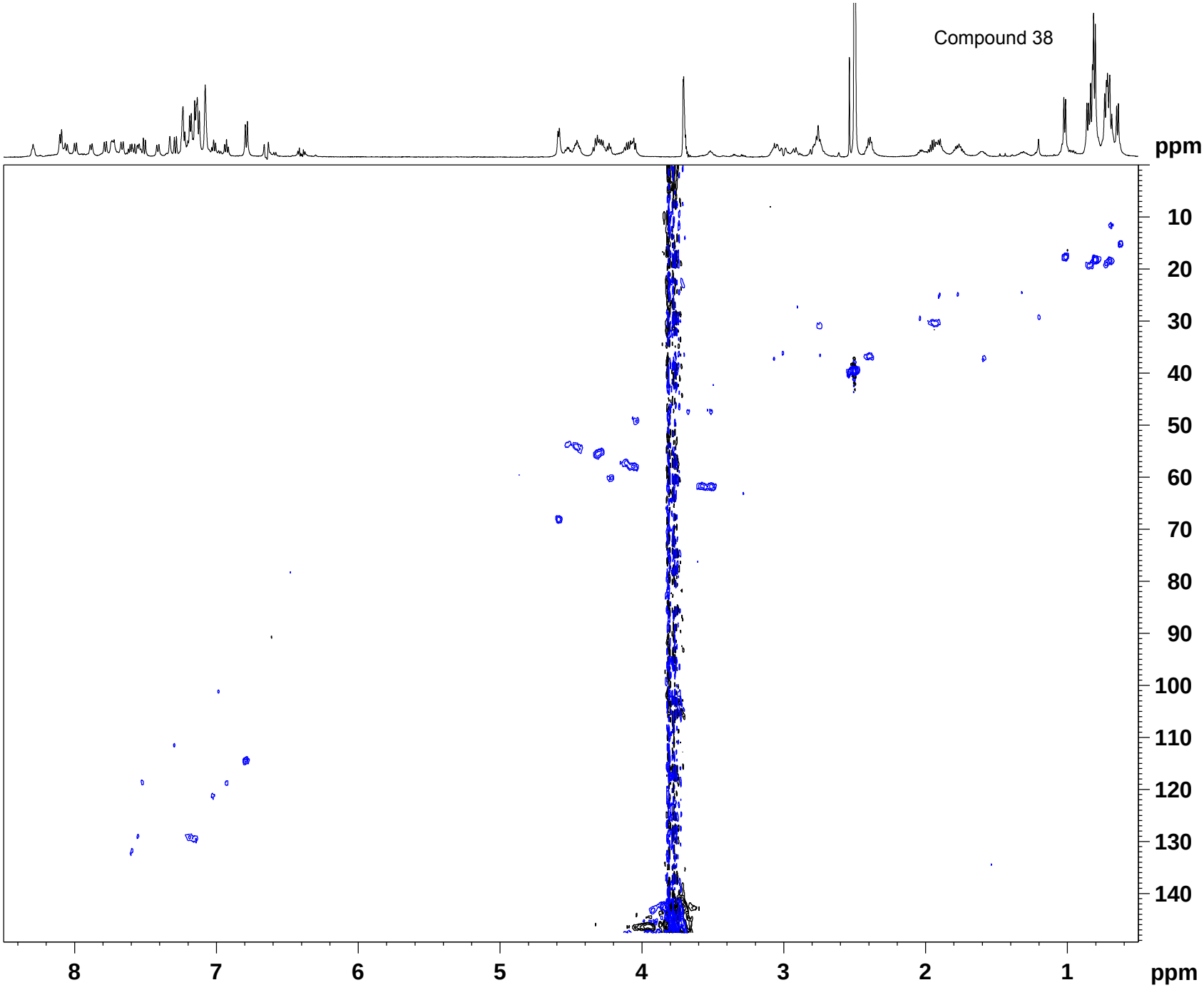





```
Current Data Parameters
NAME                  KL4-44
EXPNO                     13
PROCNO                     1

F2 - Acquisition Parameters
Date_           20130316
Time                 20.12
INSTRUM              av600
PROBHD   5 mm TBI5
PULPROG    dipsi2esgpph
TD                   2048
SOLVENT          H2O+D2O
NS                      8
DS                     16
SWH               8389.262 Hz
FIDRES            4.096319 Hz
AQ                0.1221108 sec
RG                    812.7
DW                 59.600 usec
DE                  6.50 usec
TE                 298.0 K
D0              0.00004719 sec
D1              1.00000000 sec
D9              0.06000000 sec
D11             0.03000000 sec
D12             0.00002000 sec
D13             0.00000400 sec
D16             0.00020000 sec
IN0             0.00011920 sec
L1                        14

======== CHANNEL f1 ========
NUC1                      1H
P1                     9.75 usec
P2                    19.50 usec
P6                    40.00 usec
P12                 2000.00 usec
PL0                  120.00 dB
PL1                   -2.00 dB
PL9                   80.00 dB
PL10                  10.26 dB
PL0W       0 W
PL1W          39.81071854 W
PL9W           0.00000025 W
PL10W          2.36591959 W
SFO1           600.1352691 MHz
SP1                   38.22 dB
SPNAM1      Squa100.1000
SPOAL1             1.000
SPOFFS1         -1706.14 Hz

====== GRADIENT CHANNEL =====
GPNAM1           SINE.100
GPNAM2           SINE.100
GPNAM3           SINE.100
GPNAM4           SINE.100
GPZ1                1.00 %
GPZ2                3.00 %
GPZ3               31.00 %
GPZ4               11.00 %
P16              1000.00 usec

F1 - Acquisition parameters
TD                    256
SFO1             600.1353 MHz
FIDRES          32.770580 Hz
SW                13.979 ppm
FnMODE       States-TPPI

F2 - Processing parameters
SI                   4096
SF             600.1313331 MHz
WDW                  QSINE
SSB                     2
PC                   1.00

F1 - Processing parameters
SI                   4096
MC2          States-TPPI
SF             600.1313317 MHz
WDW
SSB                     3
```



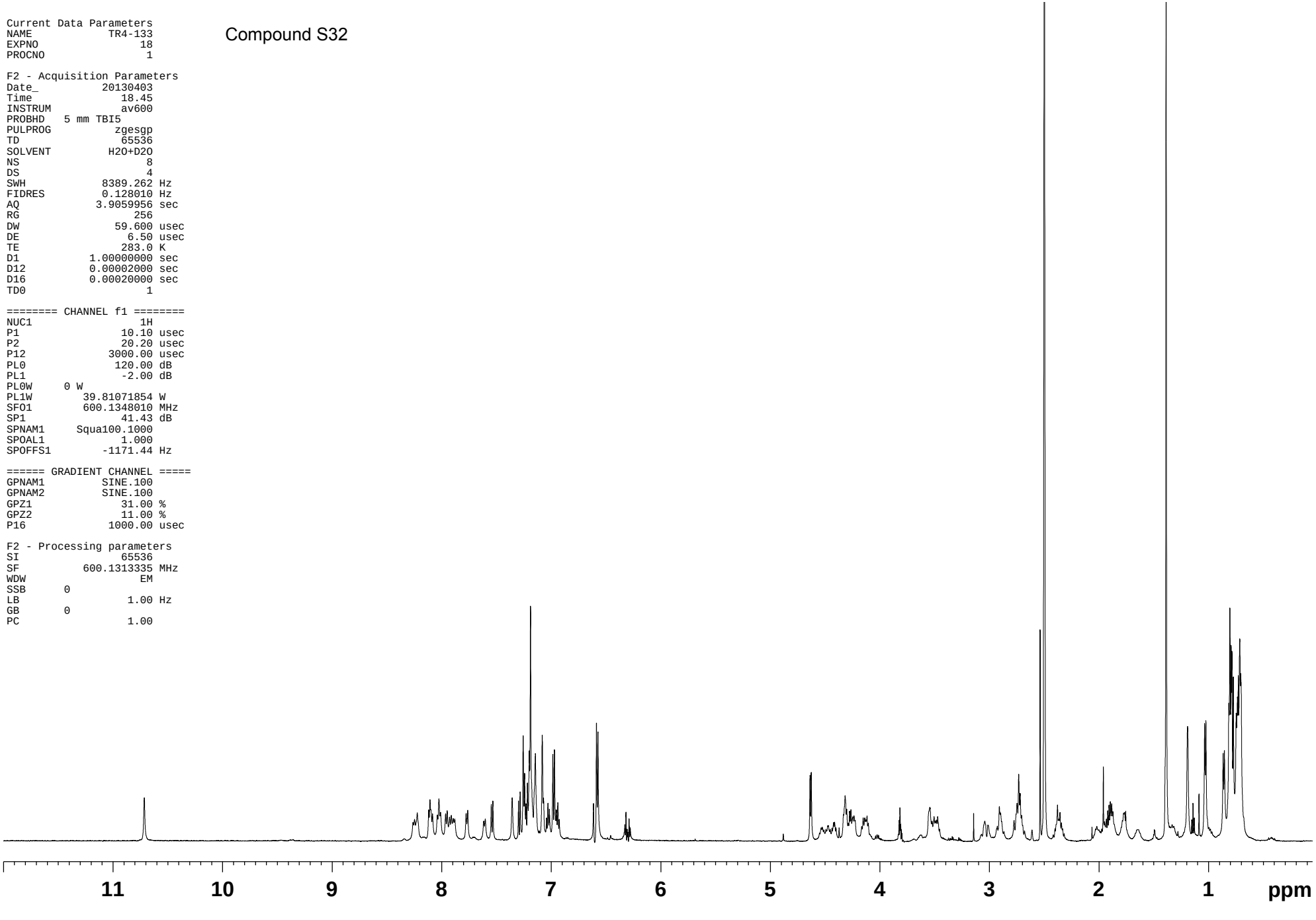

```
Current Data Parameters
NAME                  KL4-44
EXPNO                     16
PROCNO                     1

F2 - Acquisition Parameters
Date_               20130317
Time                   13.24
INSTRUM                av600
PROBHD   5 mm TBI5
PULPROG          noesyesgpph
TD                       4096
SOLVENT              H2O+D2O
NS                          8
DS                         16
SWH                 8389.262 Hz
FIDRES              2.048160 Hz
AQ                  0.2441716 sec
RG                     1625.5
DW                     59.600 usec
DE                      6.50 usec
TE                     298.0 K
D0                  0.00004719 sec
D1                  2.00000000 sec
D8                  0.30000001 sec
D11                 0.03000000 sec
D12                 0.00002000 sec
D16                 0.00020000 sec
IN0                 0.00011920 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                       9.75 usec
P2                      19.50 usec
P12                   3000.00 usec
PL0                    120.00 dB
PL1                     -2.00 dB
PL0W      0 W
PL1W               39.81071854 W
SFO1               600.1352691 MHz
SP1                     41.74 dB
SPNAM1          Squa100.1000
SPOAL1                 1.000
SPOFFS1             -1710.14 Hz

====== GRADIENT CHANNEL =====
GPNAM1               SINE.100
GPNAM2               SINE.100
GPZ1                    31.00 %
GPZ2                    11.00 %
P16                   1000.00 usec

F1 - Acquisition parameters
TD                         256
SFO1               600.1353 MHz
FIDRES             32.770554 Hz
SW                     13.979 ppm
FnMODE           States-TPPI

F2 - Processing parameters
SI                       4096
SF                 600.1313328 MHz
WDW                     QSINE
SSB                         2
PC                       1.00

F1 - Processing parameters
SI                       4096
MC2              States-TPPI
SF                 600.1313335 MHz
WDW
SSB                         3
```

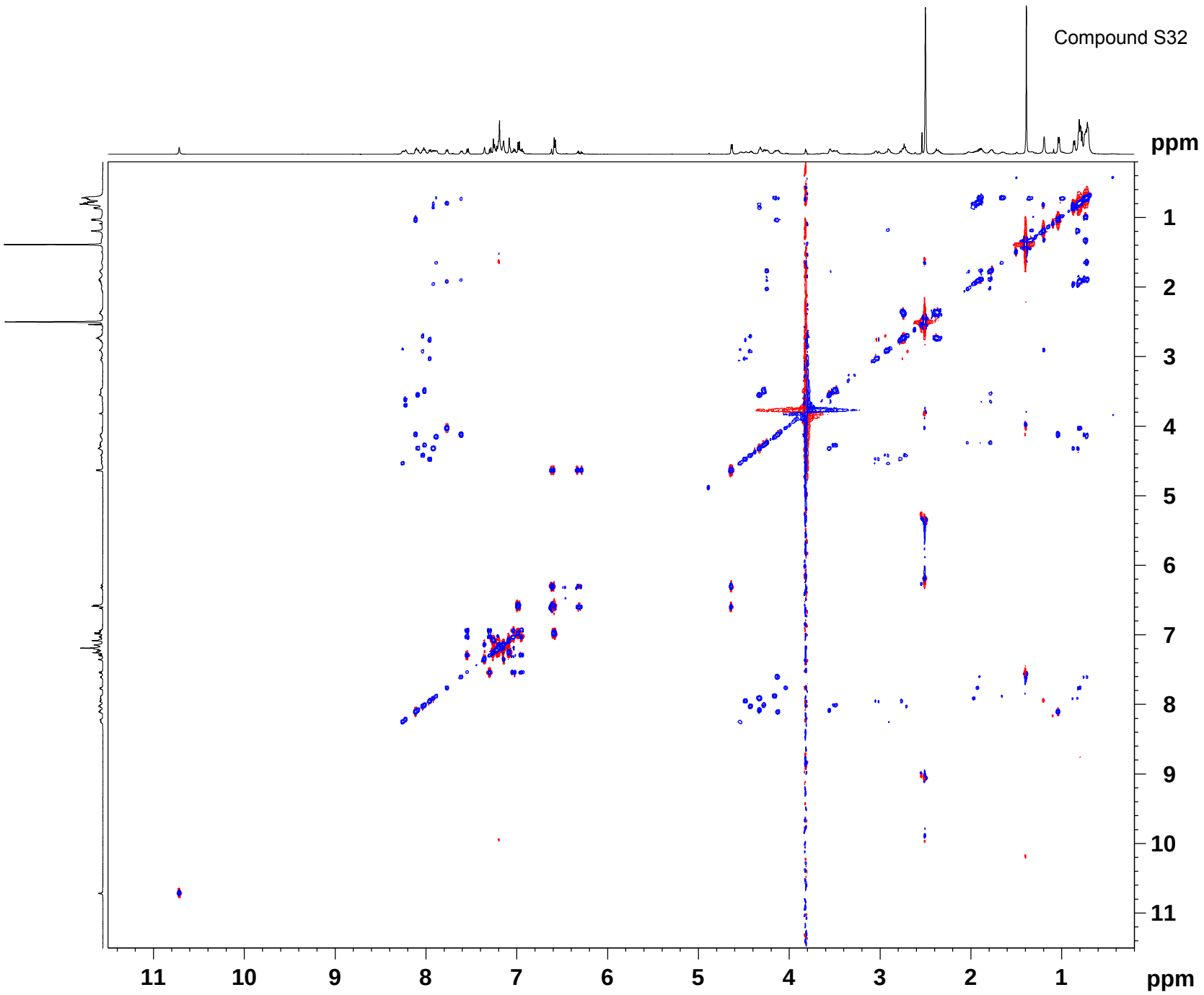



```
Current Data Parameters
NAME                  KL4-44
EXPNO                     18
PROCNO                     1

F2 - Acquisition Parameters
Date_               20130402
Time                   22.01
INSTRUM                av600
PROBHD   5 mm TBI5
PULPROG    hsqcetgpsisp
TD                      2048
SOLVENT           H2O+D2O
NS                         8
DS                        16
SWH                4921.260 Hz
FIDRES             2.402959 Hz
AQ                 0.2081268 sec
RG                      8192
DW                   101.600 usec
DE                     6.00 usec
TE                     283.0 K
CNST2             145.0000000
D0                 0.00000300 sec
D1                 1.00000000 sec
D4                 0.00172414 sec
D11                0.03000000 sec
D16                0.00020000 sec
D24                0.00086200 sec
IN0                0.00002070 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1                       1H
P1                       9.96 usec
P2                      19.92 usec
P28                   1000.00 usec
PL1                     -2.00 dB
PL1W              39.81071854 W
SFO1              600.1340570 MHz

======== CHANNEL f2 ========
CPDPRG2                  garp
NUC2                      13C
P3                      19.52 usec
P4                      39.04 usec
P14                   1000.00 usec
PCPD2                   65.00 usec
PL0                    120.00 dB
PL2                     -3.00 dB
PL12                     7.45 dB
PL0W          0 W
PL2W            150.35617065 W
PL12W            13.55567932 W
SFO2             150.9133722 MHz
SP3                      4.12 dB
SPNAM3    Crp80,0.5,20.1
SPOAL3                  0.500
SPOFFS3   0 Hz

====== GRADIENT CHANNEL =====
GPNAM1               SINE.100
GPNAM2               SINE.100
GPZ1                    80.00 %
GPZ2                    20.10 %
P16                   1000.00 usec

F1 - Acquisition parameters
TD                         134
SFO1                150.9134 MHz
FIDRES              180.195068 Hz
SW                     160.000 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                        4096
SF                600.1313293 MHz
WDW                         EM
SSB           0
LB                      3.00 Hz
GB            0
PC                      1.40

F1 - Processing parameters
SI                        4096
MC2            echo-antiecho
SF                150.9031686 MHz
WDW
SSB                      2.5
LB            0 Hz
GB            0
```

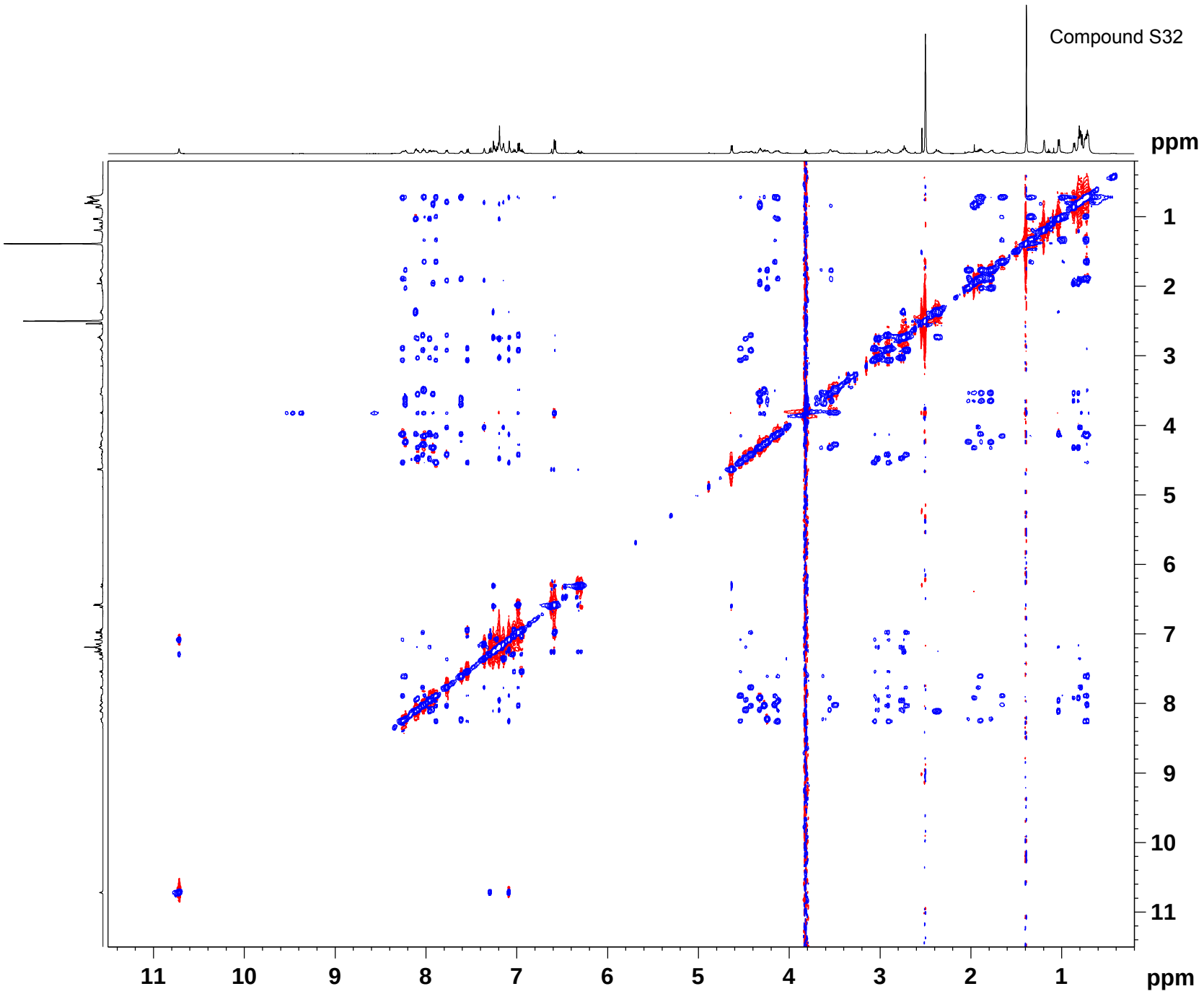
Compound S32

```
Current Data Parameters
NAME            TR4-133
EXPNO                18
PROCNO                1

F2 - Acquisition Parameters
Date_          20130403
Time              18.45
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG          zgesgp
TD                65536
SOLVENT         H2O+D2O
NS                    8
DS                    4
SWH            8389.262 Hz
FIDRES         0.128010 Hz
AQ            3.9059956 sec
RG                  256
DW               59.600 usec
DE                6.50 usec
TE                283.0 K
D1           1.00000000 sec
D12          0.00002000 sec
D16          0.00020000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.10 usec
P2                20.20 usec
P12             3000.00 usec
PL0              120.00 dB
PL1               -2.00 dB
PL0W     0 W
PL1W       39.81071854 W
SFO1        600.1348010 MHz
SP1               41.43 dB
SPNAM1     Squa100.1000
SPOAL1           1.000
SPOFFS1        -1171.44 Hz

====== GRADIENT CHANNEL =====
GPNAM1         SINE.100
GPNAM2         SINE.100
GPZ1              31.00 %
GPZ2              11.00 %
P16             1000.00 usec

F2 - Processing parameters
SI                65536
SF          600.1313335 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.00
```

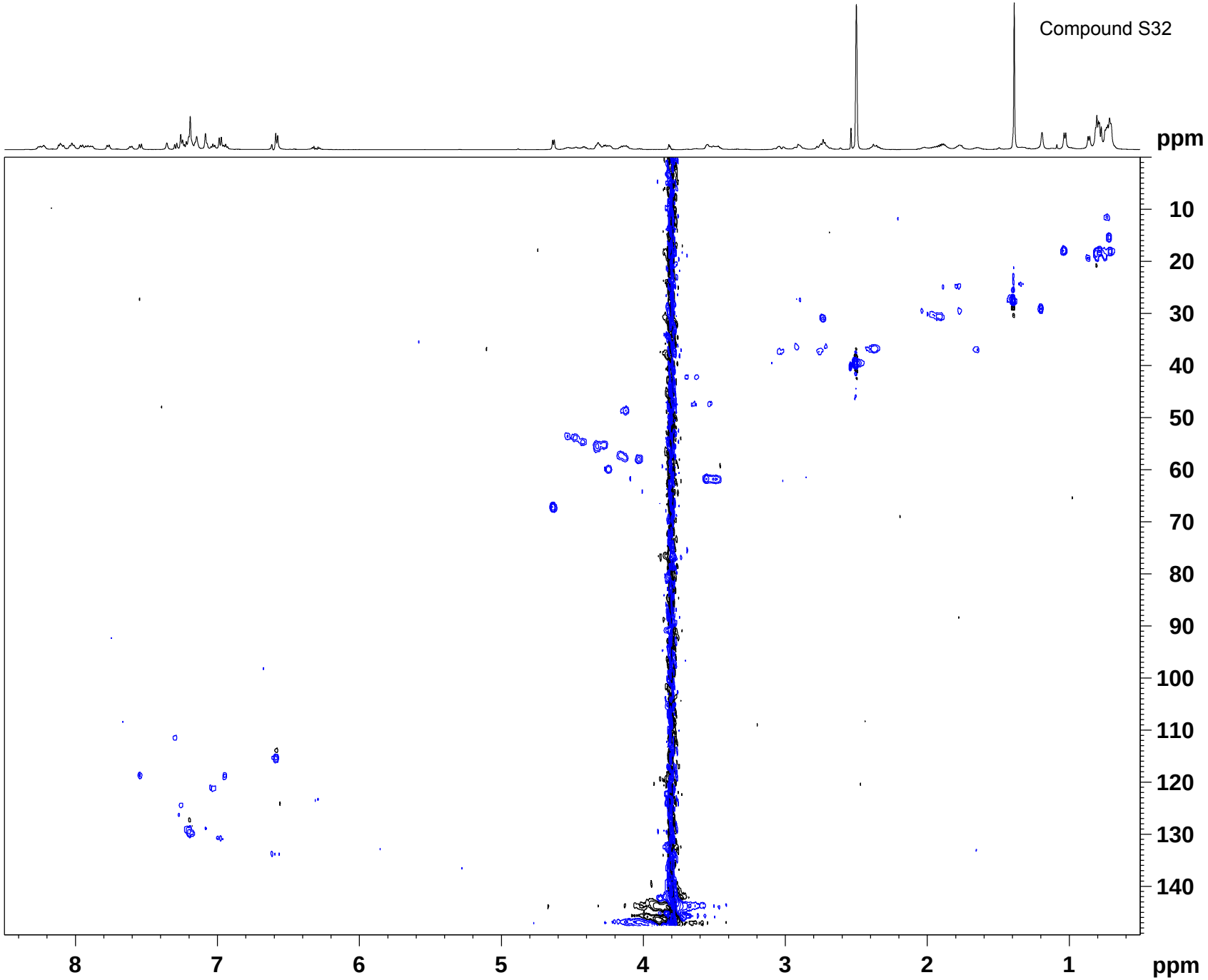





```
Current Data Parameters
NAME            TR4-133
EXPNO                13
PROCNO                1

F2 - Acquisition Parameters
Date_          20130402
Time              19.34
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG      mlevesgpph
TD                2048
SOLVENT        H2O+D2O
NS                   2
DS                  16
SWH            8389.262 Hz
FIDRES         4.096319 Hz
AQ             0.1221108 sec
RG                2298.8
DW                59.600 usec
DE                 6.50 usec
TE                283.0 K
D0           0.00003316 sec
D1           1.00000000 sec
D9           0.06000000 sec
D12          0.00002000 sec
D16          0.00020000 sec
IN0          0.00011920 sec
L1                   24

======== CHANNEL f1 ========
NUC1                 1H
P1                10.12 usec
P2                20.24 usec
P5                26.68 usec
P6                40.00 usec
P7                80.00 usec
P12             3000.00 usec
P17             2500.00 usec
PL0              120.00 dB
PL1               -2.00 dB
PL10               9.94 dB
PL0W     0 W
PL1W        39.81071854 W
PL10W        2.54683042 W
SFO1        600.1348010 MHz
SP1                41.41 dB
SPNAM1     Squa100.1000
SPOAL1            1.000
SPOFFS1        -1175.04 Hz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPNAM2          SINE.100
GPZ1               31.00 %
GPZ2               11.00 %
P16              1000.00 usec

F1 - Acquisition parameters
TD                  256
SFO1            600.1348 MHz
FIDRES         32.770554 Hz
SW                13.979 ppm
FnMODE       States-TPPI

F2 - Processing parameters
SI                 4096
SF            600.1313294 MHz
WDW                QSINE
SSB                   3
PC                 1.00

F1 - Processing parameters
SI                 4096
MC2          States-TPPI
SF            600.1313325 MHz
WDW
SSB                   3
```




```
Current Data Parameters
NAME            TR4-133
EXPNO                19
PROCNO                1

F2 - Acquisition Parameters
Date_          20130403
Time              18.54
INSTRUM           av600
PROBHD   5 mm TBI5
PULPROG     noesyesgpph
TD                4096
SOLVENT          H2O+D2O
NS                   8
DS                  16
SWH            8389.262 Hz
FIDRES         2.048160 Hz
AQ             0.2441716 sec
RG                2298.8
DW                59.600 usec
DE                 6.50 usec
TE                283.0 K
D0            0.00004674 sec
D1            2.00000000 sec
D8            0.30000001 sec
D11           0.03000000 sec
D12           0.00002000 sec
D16           0.00020000 sec
IN0           0.00011920 sec

======== CHANNEL f1 ========
NUC1                 1H
P1                10.10 usec
P2                20.20 usec
P12             3000.00 usec
PL0              120.00 dB
PL1               -2.00 dB
PL0W      0 W
PL1W        39.81071854 W
SFO1       600.1348010 MHz
SP1               41.43 dB
SPNAM1     Squa100.1000
SPOAL1           1.000
SPOFFS1       -1171.44 Hz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPNAM2          SINE.100
GPZ1              31.00 %
GPZ2              11.00 %
P16             1000.00 usec

F1 - Acquisition parameters
TD                 256
SFO1          600.1348 MHz
FIDRES        32.770527 Hz
SW               13.979 ppm
FnMODE       States-TPPI

F2 - Processing parameters
SI                4096
SF          600.1313327 MHz
WDW               QSINE
SSB                  2
PC                1.00

F1 - Processing parameters
SI                4096
MC2          States-TPPI
SF          600.1313331 MHz
WDW
SSB                  3
```




```
Current Data Parameters
NAME              TR4-133
EXPNO                  14
PROCNO                  1

F2 - Acquisition Parameters
Date_            20130402
Time                19.58
INSTRUM             av600
PROBHD   5 mm TBI5
PULPROG    hsqcetgpsisp
TD                   2048
SOLVENT          H2O+D2O
NS                      8
DS                     16
SWH             4921.260 Hz
FIDRES          2.402959 Hz
AQ              0.2081268 sec
RG                   8192
DW                101.600 usec
DE                  6.00 usec
TE                283.0 K
CNST2         145.0000000
D0             0.00000300 sec
D1             1.00000000 sec
D4             0.00172414 sec
D11            0.03000000 sec
D16            0.00020000 sec
D24            0.00086200 sec
IN0            0.00002070 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1                   1H
P1                  10.12 usec
P2                  20.24 usec
P28               1000.00 usec
PL1                 -2.00 dB
PL1W          39.81071854 W
SFO1          600.1340570 MHz

======== CHANNEL f2 ========
CPDPRG2              garp
NUC2                  13C
P3                  19.52 usec
P4                  39.04 usec
P14               1000.00 usec
PCPD2               65.00 usec
PL0                120.00 dB
PL2                 -3.00 dB
PL12                7.45 dB
PL0W      0 W
PL2W        150.35617065 W
PL12W        13.55567932 W
SFO2         150.9133722 MHz
SP3                 4.12 dB
SPNAM3    Crp80,0.5,20.1
SPOAL3              0.500
SPOFFS3   0 Hz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPNAM2          SINE.100
GPZ1               80.00 %
GPZ2               20.10 %
P16              1000.00 usec

F1 - Acquisition parameters
TD                    233
SFO1            150.9134 MHz
FIDRES        103.631500 Hz
SW                160.000 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                   4096
SF           600.1313291 MHz
WDW                    EM
LB                  3.00 Hz
PC                  1.40

F1 - Processing parameters
SI                   4096
MC2        echo-antiecho
SF           150.9031666 MHz
WDW
SSB                     2
```